# **INDEX**

# INDEX (CONTINUED)

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3	VM	VICINITY MAP
4	SQ1	SUMMARY OF QUANTITIES
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14-20	BB1-BB7	MUD BAY BRIDGE NO. 101/508W
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27-32	BD1-BD6	McALLISTER CREEK BRIDGE NO. 5/342W
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SHEET NO.	PLAN REFERENCE NO.	TITLE

PLAN
REFERENCE
NO.
SHEET
OF
SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS
AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS,
REFER TO THE ENTRY IN THE PLAN REFERENCE NUMBER BOX.

FILE NAME	G:\DESIGN\XL6279 I-5US 101	McAllister Creek & Mud Bay Bridges - Repair BridgeP	iles\_CAD\_Sh	eets			
TIME	9:37:22 AM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	3/31/2022					WASH	
PLOTTED BY	LeonarJ				10	VVASH	
DESIGNED BY	R. BAILEY				JOB N		
ENTERED BY	R. BAILEY				21C512		NHPP-0053(982)
CHECKED BY	J. HODGES				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	B. WHITEHOUSE						XL-6279
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			XL-0213

		<b>{</b>
		Washin Department o
DATE	DATE	

<b>*</b>	I-5/US-101
Washington State	MCALLISTER CREEK & MUD BAY BRIDGES REPAIR BRIDGE PILES
anone or transportation	INDEX

PLAN REF. NO.

SHEET

1

OF

44

SHEETS

# PROJECT LICENSED PROFESSIONAL CERTIFICATES

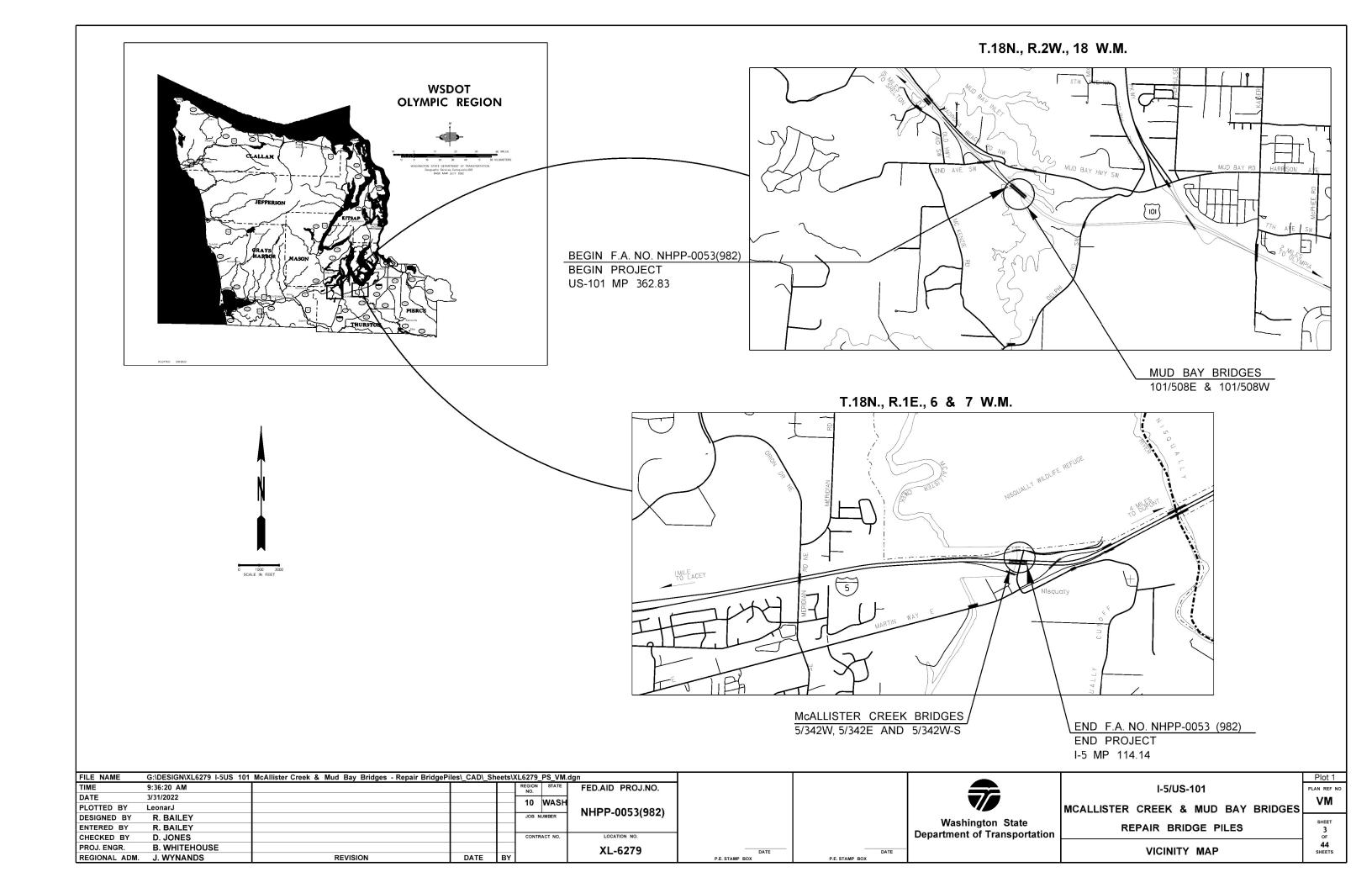
Casey Fraisure Casey Fraisure (Mar 31, 2022 13:35 PDT)	Bijan Khaleghi	Talan Pavid Jambata	B.all
Casey Fraisure	Bijan Khaleghi	David Sawahata	Brian Aldrich
Mar 31, 2022	Mar 31, 2022	Mar 31, 2022	Mar 31, 2022
AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.
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#### NOTES:

THIS PLAN SET WAS DEVELOPED ELECTRONICALLY UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONALS THAT HAVE AFFIXED THEIR SIGNATURE TO THIS PAGE.

THIS SHEET SERVES AS THE CERTIFICATION BY THE ABOVE LICENSED PROFESSIONALS OF ALL SHEETS IN THIS PLAN SET WHERE THEIR STAMPS AND SIGNATURES APPEAR.

FILE NAME	G:\DESIGN\XL6279 I-5US 101	McAllister Creek & Mud Bay Bridges - Repair BridgePi	.les\_CAD\_Sh	eets\XL6	5279_PS_CT	'.dgn	]			<u>'</u>	
TIME	9:22:18 AM			R	EGION STATE	FED.AID PROJ.NO.	1			I-5/US 101	PLAN REF NO
DATE	3/31/2022			l	40 14/4 61						CT1
PLOTTED BY	LeonarJ				10 WASI	1				MCALLISTER CREEK & MUD BAY BRIDGES	"'
DESIGNED BY	J. LEONARD				JOB NUMBER	1			Washington State	REPAIR BRIDGE PILES	SHEET
ENTERED BY	J. LEONARD		( )	, I	KL6279						2
CHECKED BY			$\mathbf{I}$		CONTRACT NO.	LOCATION NO.	1		Department of Transportation		OF
PROJ. ENGR.	B. WHITEHOUSE						DATE	DATE	-	CERTIFICATION SHEET	44 SHEETS
REGIONAL ADM.	S. ROARK	REVISION	DATE	BY			P.E. STAMP BOX	P.E. STAMP BOX		OLIVIII IOATION OTILLI	SHEETS



# DOT\_RGG900

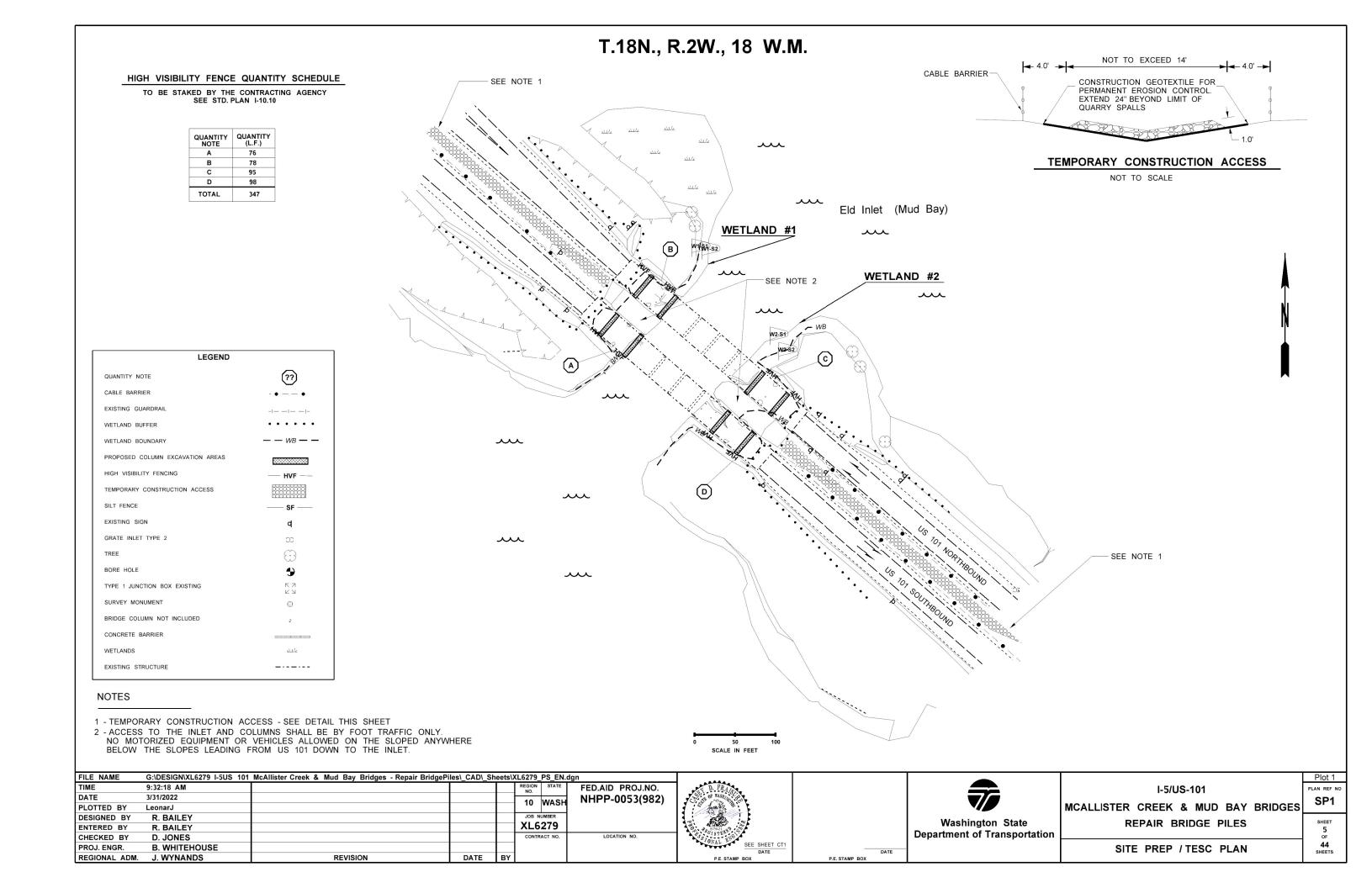
3/16/2022

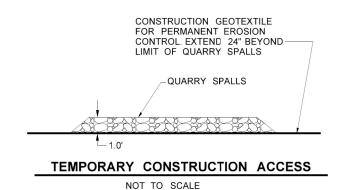
# SUMMARY OF QUANTITIES

		SUB-TOTAL	SUB-TOTAL				GROUP 1	GROUP 1	GROUP 1	GROUP 2	GROUP 2	GROUP 3					
ITEM	TOTAL	SECTION	SECTION	STD.			I-5 BRIDGE	I-5 BRIDGE	I-5 BRIDGE	US 101	US 101	REIMB.					
NO	QUANTITY	I-07.2(1) OF	I-07.2(2) OF	ITEM NO.	UNIT	ITEM	5/342E	5/342W	5/342W-S	BRIDGE	BRIDGE	FOR THIRD					
	QUANTITY	STANDARD	STANDARD	NO.						101/508E	101/508W	PARTY DAMAGE					
		SPECS	SPECS									57 1117 102					
						PREPARATION		ĺ					ĺ		İ		
1	LUMP SUM		LUMP SUM	0001	L.S.	MOBILIZATION	L.S.	L.S.	L.S.	L.S.	L.S.						
		1					]	1									
		1				DRAINAGE		1					1				
2	880.00		880.00	1086	TON	QUARRY SPALLS		395.00		215.00	270.00						
							_										
						STRUCTURE	_										
3	LUMP SUM	<u> </u>				COLUMN JACKETING - BR. NO. 5/342E	L.S.	<u> </u>					<u> </u>				
4	LUMP SUM		LUMP SUM	4331	L.S.	COLUMN JACKETING - BR. NO. 5/342W	_	L.S.					<u> </u>				
5	LUMP SUM		LUMP SUM	4331	L.S.	COLUMN JACKETING - BR. NO. 5/342W-S	_		L.S.								
6	LUMP SUM					COLUMN JACKETING - BR. NO. 101/508E	_			L.S.							
7	LUMP SUM		LUMP SUM	4331	L.S.	COLUMN JACKETING - BR. NO. 101/508W	_				L.S.						
							_										
						EROSION CONTROL AND ROADSIDE PLANTING	_										
8	60.00					SILT FENCE	_	60.00									
9	25.00					STREET CLEANING	_]	9.00		8.00	8.00		<u> </u>				
10	1.00					INLET PROTECTION	_]	1.00					<u> </u>				
11	680.00		680.00	6630	L.F.	HIGH VISIBILITY FENCE	_]	330.00		350.00			<u> </u>				
							_]	1					1				
						TRAFFIC	_]						1				
12	LUMP SUM		LUMP SUM	6971	L.S.	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	L.S.	L.S.	L.S.	L.S.						
						OTHER ITEMS											
13	2000.00			7480		ROADSIDE CLEANUP				2,000.00							
14	1740.00	<u> </u>		7530		CONSTRUCTION GEOTEXTILE FOR SEPARATION		730.00		450.00	560.00						
15	LUMP SUM		LUMP SUM			REMOVE AND RESET RIP-RAP	_]	1	L.S.								
16	5.00					REIMBURSEMENT FOR THIRD PARTY DAMAGE	_]	1				5.00	1				
17	-5.00	<u> </u>		7728		MINOR CHANGE	-1.00	-1.00	-1.00	-1.00	-1.00						
18	-3.00	<u> </u>		7732		AGGREGATE COMPLIANCE PRICE ADJUSTMENT	_	-1.00		-1.00	-1.00						
19	LUMP SUM	<u> </u>	LUMP SUM	7736	L.S.	SPCC PLAN	L.S.	L.S.	L.S.	L.S.	L.S.						
		l															

GROUP	GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
LEGEND	1	005	340104	**	0053(982)
	2	101	340503	**	0053(982)
	3	005	340104	**	STATE

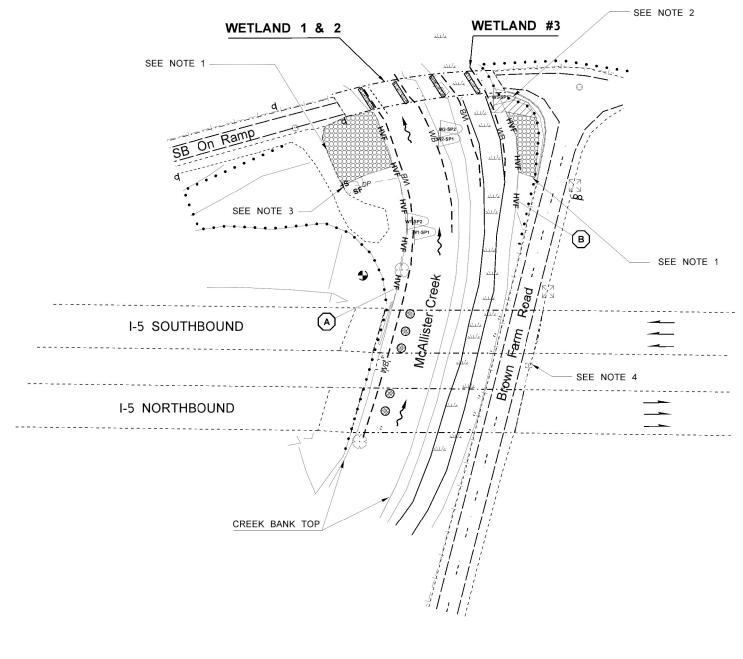
		REGIO	N STATE	FEDERAL AID PROJECT. NO.		1.5/110.404	SQ1	
		10	WA	0053(982)		I-5/US 101	JULI	
		10	WA		Washington State	MCALLISTER CREEK & MUD BAY BRIDGES	SHEET	
			NUMBER		Department of Transportation	REPAIR BRIDGE PILES	4	
		210	C512/3		Bopartmont of Transportation		OF	
			TRACT NO			SUMMARY OF QUANTITIES	44	
DATE	REVISION BY	Y 00	00000				SHEETS	





LEGEND

# T.18N., R1E., 6 & 7 W.M.



## NOTES

- 1 TEMPORARY CONSTRUCTION ACCESS SEE DETAIL THIS SHEET
- 2 CLEARING AREA

QUANTITY NOTE

CABLE BARRIER

EXISTING GUARDRAIL

WETLAND BOUNDARY

HIGH VISIBILITY FENCING

GRATE INLET TYPE 2

SURVEY MONUMENT

CONCRETE BARRIER
WETLANDS

EXISTING STRUCTURE

TYPE 1 JUNCTION BOX EXISTING

BRIDGE COLUMN NOT INCLUDED

PROPOSED COLUMN EXCAVATION AREAS

TEMPORARY CONSTRUCTION ACCESS

WETLAND BUFFER

SILT FENCE

EXISTING SIGN

TREE

3 - SILT FENCE FOR INLET PROTECTION (APPROX. 60 LF) - SEE STD. PLAN I-40.10-00

-- wb --

d

4

4 - STORM DRAIN INLET PROTECTION (1 EA.) - SEE STD. PLAN I-40.20-00

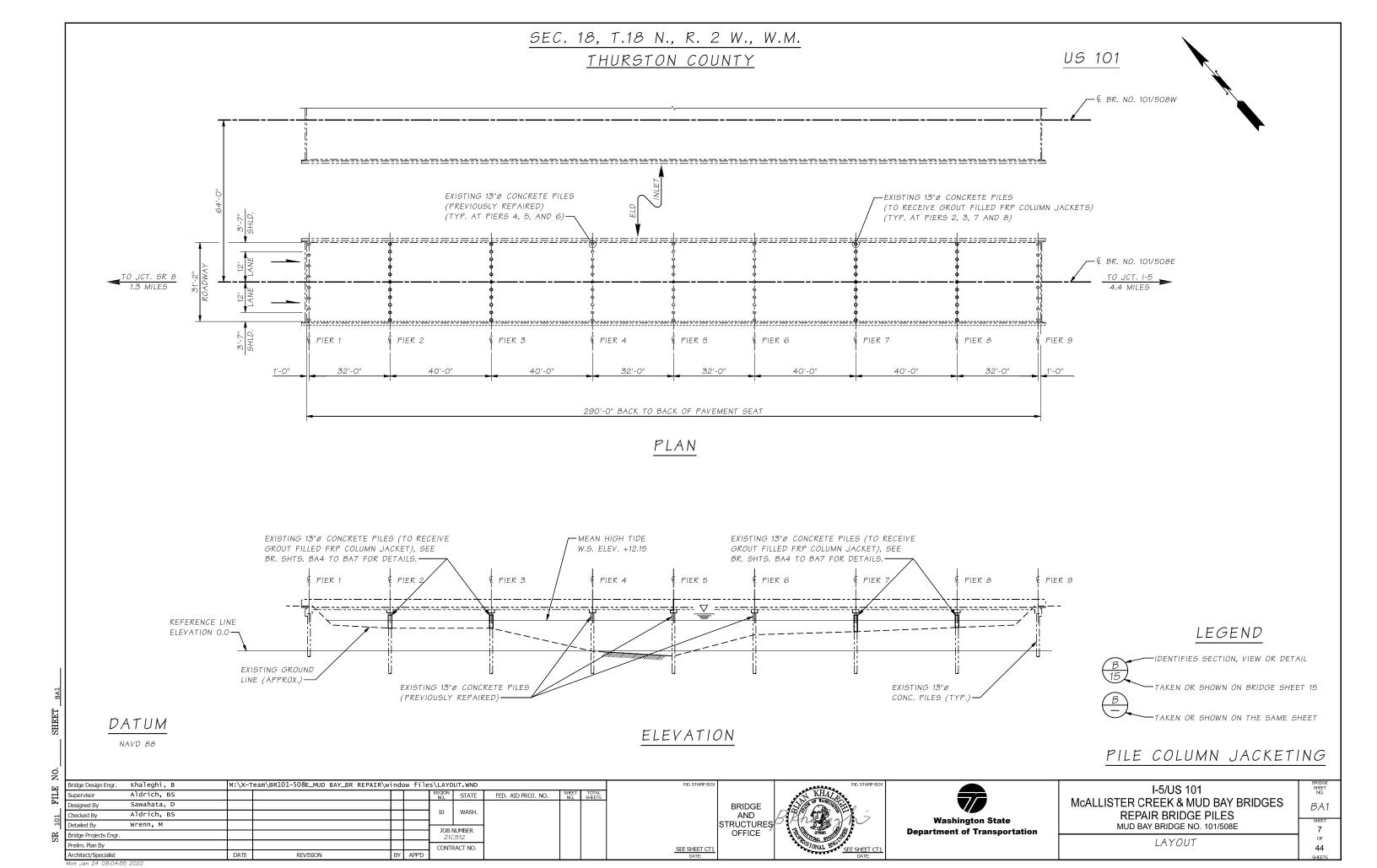


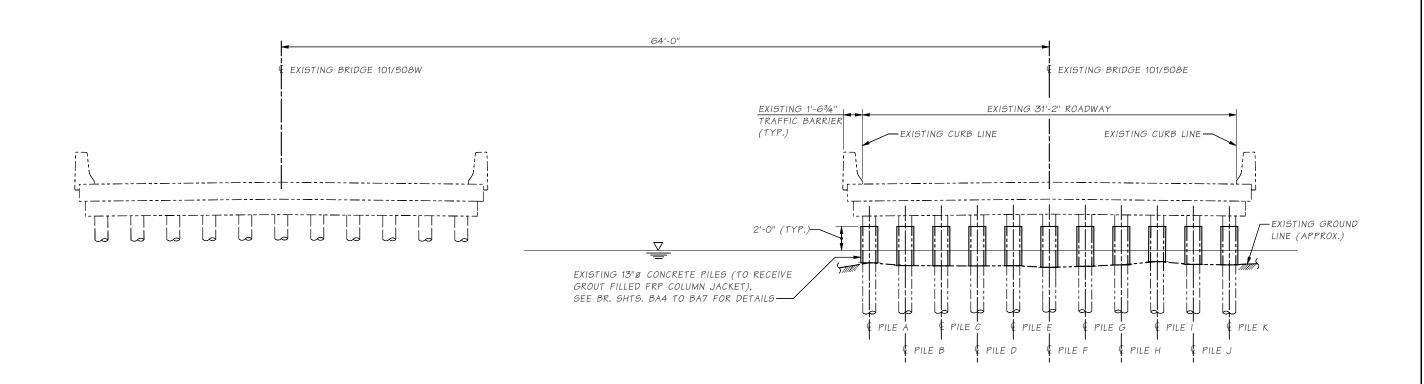
#### HIGH VISIBILITY FENCE QUANTITY SCHEDULE

TO BE STAKED BY THE CONTRACTING AGENCY SEE STD. PLAN I-10.10

QUANTITY NOTE	QUANTITY (L.F.)
Α	204
В	126
TOTAL	330

FILE NAME	G:\DESIGN\XL62/9 1-305 101	McAllister Creek & Mud Bay Bridges - Repair Bridger	nes\_CAD\_Sneets	SAL62/9_P3_EN.	agn	ا معمد ا			l L	P101 2	
TIME	9:33:12 AM			REGION STATE	FED.AID PROJ.NO.	S. D. FRAZE			I-5/US-101	PLAN REF NO	1
DATE	3/31/2022			10 WASH	NHPP-0053(982)	OF WASHING				SP2	
PLOTTED BY	LeonarJ			IU WASH					MCALLISTER CREEK & MUD BAY BRIDGES	01.2	
DESIGNED BY	R. BAILEY			JOB NUMBER				Washington State	DEDAID DDIDGE DILEG	SHEET	1
ENTERED BY	R. BAILEY			XL6279		0, 4, 57621 D		3	REPAIR BRIDGE PILES	6	
CHECKED BY	D. JONES			CONTRACT NO.	LOCATION NO.	S CONAL ENGL		Department of Transportation		OF	
PROJ. ENGR.	B. WHITEHOUSE					SEE SHEET CT1	DATE		SITE PREP / TESC PLAN	44 SHEETS	
REGIONAL ADM.	J. WYNANDS	REVISION	DATE BY	7		P.E. STAMP BOX	P.E. STAMP BOX			SHEETS	





## TYPICAL SECTION

SHOWN NEAR PIER 3, PIERS 2, 7, AND 8 SIMILAR

### GENERAL NOTES

- 1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2022, AND AMENDMENTS.
- 2. THE DIMENSIONS SHOWN IN THE PLANS ARE BASED ON AS-BUILT PLANS. ALL RELEVANT DETAILS AND DIMENSIONS SHALL BE FIELD MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS AND PROCEEDING WITH CONSTRUCTION.

_												
a	Bridge Design Engr.	Khaleghi, B	M:\X-T	eam\BR101-508E_MUD BAY_BR REPAIR\w	indo	ow file	s\NOTE	S & TYP	SEC.wnd			Γ
3	Supervisor	Aldrich, BS			П		REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	l
٩.	Designed By	Sawahata, D										ĺ
ᆁ	Checked By	Aldrich, BS			П		10	WASH.				l
레	Detailed By	Wrenn, M					TODA	II IMPED				_
4	Bridge Projects Engr.							NUMBER 5512				
2	Prelim. Plan By						CONTR	RACT NO.				
	Architect/Specialist	_	DATE	REVISION	BY	APP'D						l





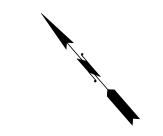


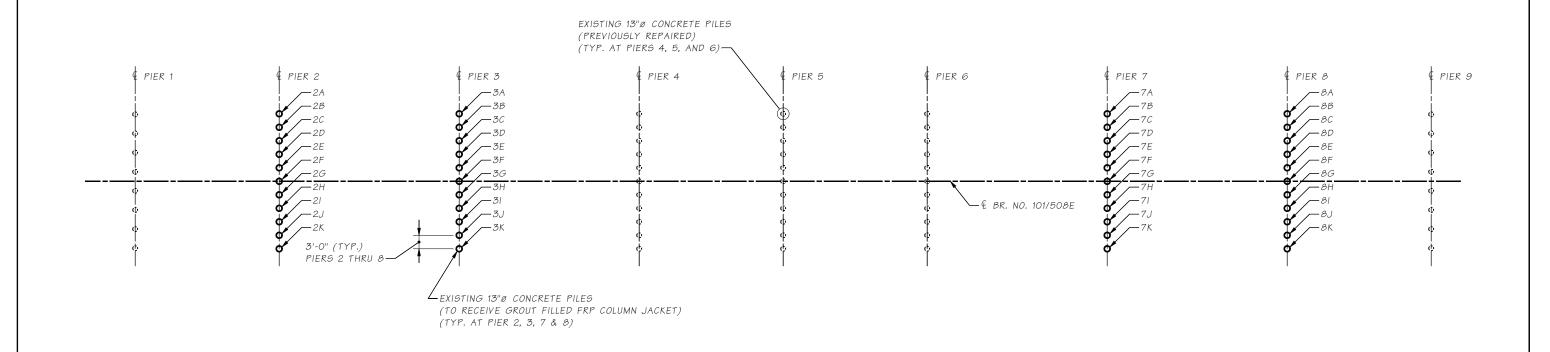
I-5/US 101 McALLISTER CREEK & MUD BAY BRIDGES REPAIR BRIDGE PILES MUD BAY BRIDGE NO. 101/508E

GENERAL NOTES & TYPICAL SECTION

BA2

8





# FOUNDATION LAYOUT

_												
a	Bridge Design Engr.	Khaleghi, B	M:\X-T	eam\BR101-508E_MUD BAY_BR REPAIR\wi	ndo	w file	s\FOUN	DATION L	_AYOUT.wnd			Γ
3	Supervisor	Aldrich, BS					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
٩.	Designed By	Sawahata, D										
ᆀ	Checked By	Aldrich, BS					10	WASH.				
레	Detailed By	Wrenn, M					TODA	II IMPED	ļ			-
4	Bridge Projects Engr.							NUMBER 512	ļ			
2	Prelim. Plan By						CONTR	RACT NO.	ļ			
	Architect/Specialist	-	DATE	REVISION	BY	APP'D			l .			1

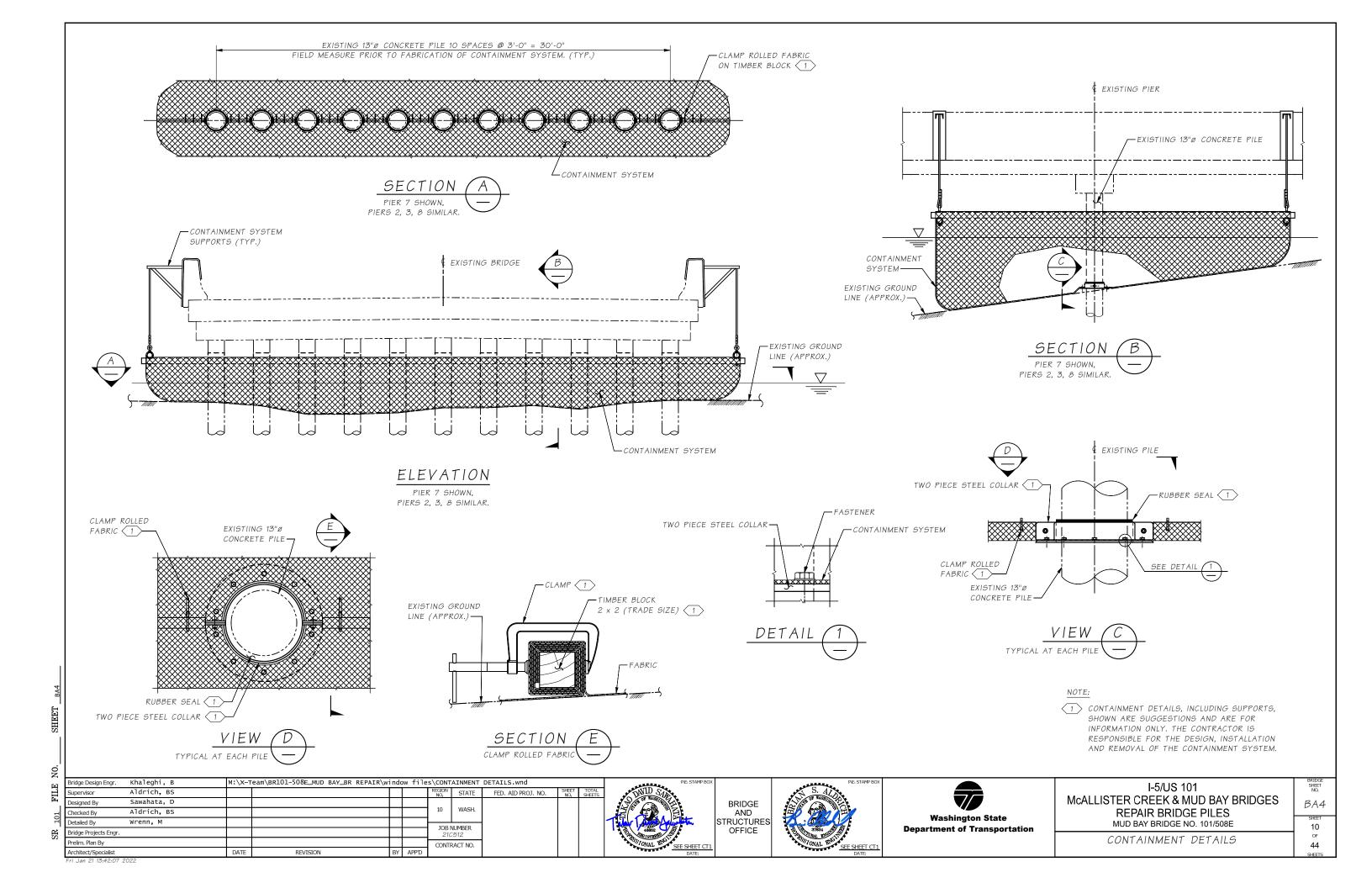


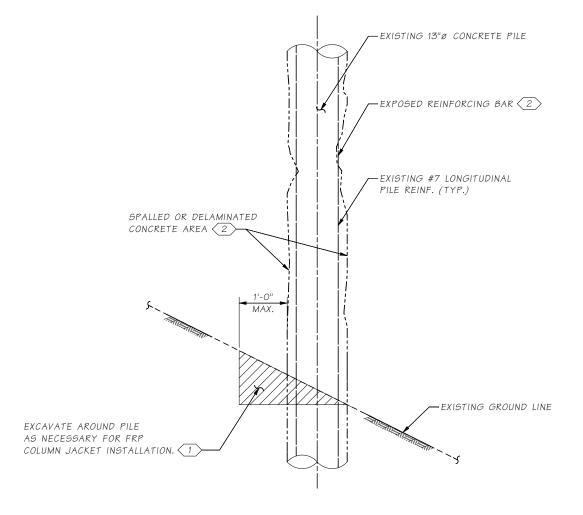




I-5/US 101 McALLISTER CREEK & MUD BAY BRIDGES REPAIR BRIDGE PILES MUD BAY BRIDGE NO. 101/508E
FOUNDATION LAYOUT
FOUNDATION LAYOUT

BA3





# EXISTING CONDITION PILE PREPARATION DETAIL

EXISTING HOOP REINFORCING AND CONTAINMENT SYSTEM NOT SHOWN FOR CLARITY (TYPICAL 44 PILES)

#### PILE PREPARATION PROCEDURE

- 1. ASSEMBLE CONTAINMENT SYSTEM. (SEE BRIDGE SHEET BA4 FOR DETAILS.)
- 2. CLEAN AND PREPARE THE SURFACE OF THE PILES WITHIN THE LIMITS OF THE JACKET ASSEMBLY TO REMOVE MARINE GROWTH, DIRT, DEBRIS, AND LOOSE & UNSOUND CONCRETE.
- 3. REMOVE DEBRIS AND CONTAINMENT SYSTEM.
- 4. ASSEMBLE FRP COLUMN JACKET AROUND PILE. (SEE BRIDGE SHEET BAG FOR DETAILS.)
- 5. COMPLETE INSTALLATION OF FRP COLUMN JACKET SYSTEM. (SEE BRIDGE SHEET BAG FOR DETAILS.)

#### NOTES:

- 1 EXCAVATION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 2-09.3(3).
- 2 CONCRETE REMOVAL AND SURFACE PREPARATION (REMOVED CONCRETE SURFACE AND EXPOSED REINFORCING STEEL) SHALL BE IN ACCORDANCE TO STANDARD SPECIFICATIONS 6-01.16(2)A.
  CONTACT ENGINEER IF CONCRETE REMOVAL IS NECESSARY BEHIND EXPOSED REBAR.

Bridge Design Engr.	Khaleghi, B	M:\X-T	eam\BR101-508E_MUD BAY_BR REPAIR	\wind	ow file	s\PILE	REPAIR	.wnd		
Supervisor	Aldrich, BS					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Sawahata, D									
Checked By	Aldrich, BS					10	WASH.			
Detailed By	Wrenn, M					TOD	3 NUMBER	-		
Bridge Projects Engr.							NUMBER 0512			
Prelim. Plan By						CONT	RACT NO.			
Architect/Specialist		DATE	REVISION	BY	APP'D	]			l	



BRIDGE AND STRUCTURES OFFICE





I-5/US 101
McALLISTER CREEK & MUD BAY BRIDGES
REPAIR BRIDGE PILES
MUD BAY BRIDGE NO. 101/508E

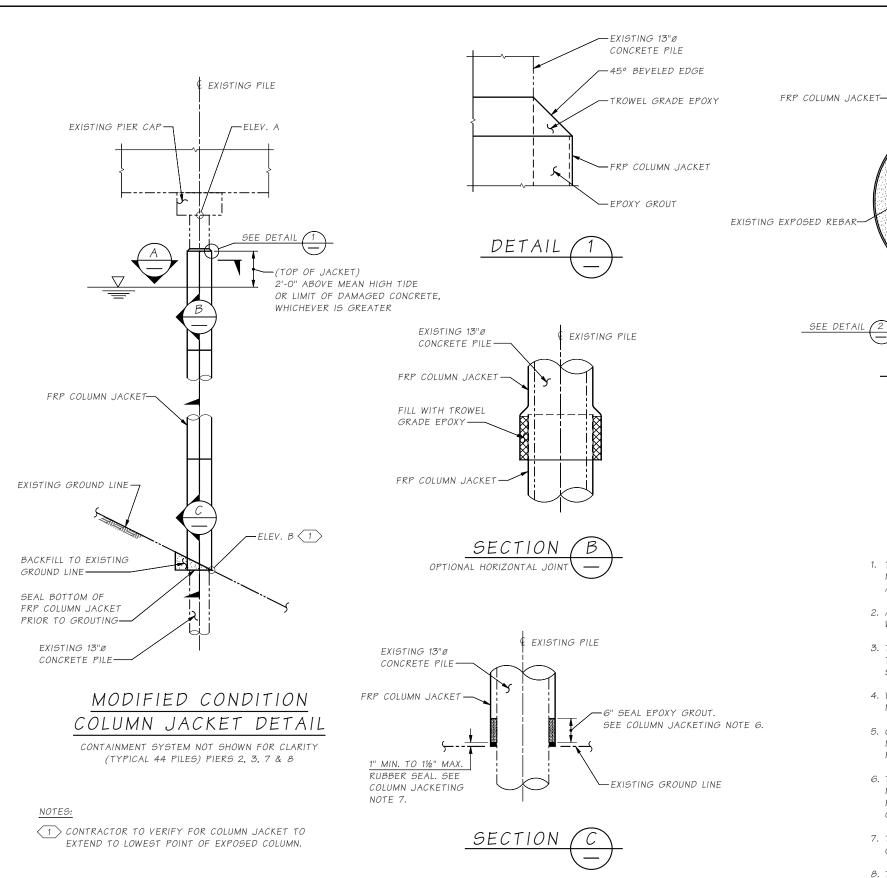
PILE REPAIR DETAILS

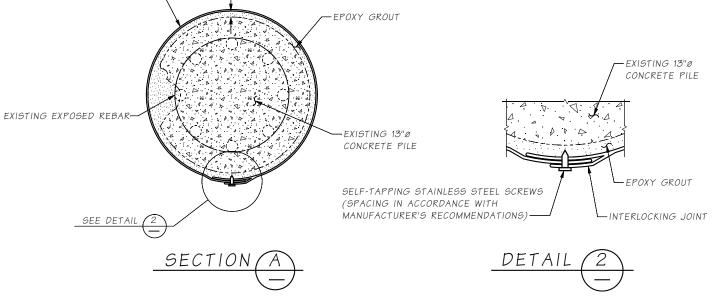
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BA5

11





1/2" MIN. TO 3/4" MAX.

CLR. TO EXISTING PILE

## COLUMN JACKETING NOTES

- 1. THE FIBERGLASS JACKET SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE DETAILS SHOWN HERE ARE FOR SUGGESTION ONLY. A DETAILED INSTALLATION PLAN SHALL BE SUBMITTED AS A TYPE 2 WORKING DRAWING.
- 2. ALL VOIDS BETWEEN FRP COLUMN JACKET AND EXISTING PILE SURFACE SHALL BE FILLED WITH EPOXY GROUT ACORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 3. THE LOCATION AND NUMBER OF HORIZONTAL CONNECTIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DETAILS SHOWN ON THIS SHEET ARE FOR SUGGESTION ONLY.
- 4. VERTICAL TONGUE & GROOVE CLOSURE SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 5. GROUT INJECTION NOZZLES SHALL BE PROVIDED ON JACKET IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE REMOVED, SEALED, AND GROUND FLUSH AT COMPLETION OF GROUTING OPERATION.
- 6. THE SEAL AT THE BOTTOM OF THE JACKET SHALL BE FULLY SET IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS PRIOR TO GROUTING. THE JACKET MAY BE FILLED WITH FRESH WATER DURING SEAL CURING TO ACCOUNT FOR THE HEAD DIFFERENTIAL WITH THE CHANGING TIDE.
- 7. THE RUBBER SEAL HEIGHT SHALL BE TWICE THE THICKNESS OF THE CLEAR SPACE FOR THE GROUT BETWEEN THE JACKET AND PILE.
- 8. THE JACKET SHALL BE PIGMENTED WASHINGTON GRAY BY THE MANUFACTURER.

	Bridge Design Engr.	Khaleghi, B	M:\X-T	ream\BR101-508E_MUD BAY_BR REPAIR\w	indo	ow file	s\PILE	JACKET	DTL 1.wnd			Г
	Supervisor	Aldrich, BS					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	ĺ
	Designed By	Sawahata, D										ĺ
d	Checked By	Aldrich, BS					10	WASH.				ı
1	Detailed By	Wrenn, M					TODA	III IMPED				1
	Bridge Projects Engr.							NUMBER 5512				ı
	Prelim. Plan By						CONTE	RACT NO.				ĺ
	Architect/Specialist		DATE	REVISION	BY	APP'D						1









	I-5/US 101
	McALLISTER CREEK & MUD BAY BRIDGES
l	REPAIR BRIDGE PILES
L	MUD BAY BRIDGE NO. 101/508E

FRP JACKET DETAILS 1 OF 2 BA6

12

BRIDGE	NO. 10	1/508E	TABLE
COLUMN NUMBER	ELEV. A	ELEV. B	APPROX. JACKET LENGTH (FT.)
2A	14.94	11.11	3.0
2В	14.96	10.88	3.3
2C	14.98	10.86	3.3
2D	15.00	10.85	3.3
2E	15.05	10.87	3.3
2F	15.09	10.73	3.4
2 <i>G</i>	15.06	10.82	3.3
2H	15.02	10.94	3.2
21	14.99	11.21	2.9
2J	14.97	10.98	3.2
2K	14.96	10.94	3.2
3A	15.02	9.82	4.3
3B	15.06	9.64	4.5
3C	15.09	8.89	5.3
3D	15.12	9.52	4.6
3E	15.16	9.57	4.6
3F	15.16	9.51	4.6
3 <i>G</i>	15.13	9.17	5.0
3H	15.09	9.26	4.9
31	15.06	9.26	4.9
<b>3</b> J	15.04	8.68	5.5
3K	15.00	8.57	5.6

BRIDGE	NO. 10	1/508E	TABLE
COLUMN NUMBER	ELEV. A	ELEV. B	APPROX. JACKET LENGTH (FT.)
7A	14.98	10.90	3.2
7B	15.00	10.63	3.5
70	15.03	10.07	4.1
7D	15.05	10.08	4.1
7E	15.10	10.17	4.0
7F	15.11	10.50	3.6
7 <i>G</i>	15.08	10.51	3.6
7H	15.05	10.65	3.5
71	15.01	10.41	3.7
7J	14.98	10.81	3.3
7K	14.96	10.99	3.2
8A	15.00	11.65	2.5
8B	15.04	11.37	2.8
8C	15.07	11.51	2.6
8D	15.08	11.28	2.9
8E	15.11	11.39	2.8
8F	15.13	11.40	2.8
8 <i>G</i>	15.10	11.25	2.9
8H	15.06	11.21	2.9
81	15.03	11.26	2.9
8J	14.99	11.21	2.9
8K	14.95	11.28	2.9

В	ridge Design Engr.	Khaleghi, B	M:\X-T	eam\BR101-508E_MUD BAY_BR REPAIR\w	indo	ow file	s\PILE	JACKET	DTL 2.wnd		
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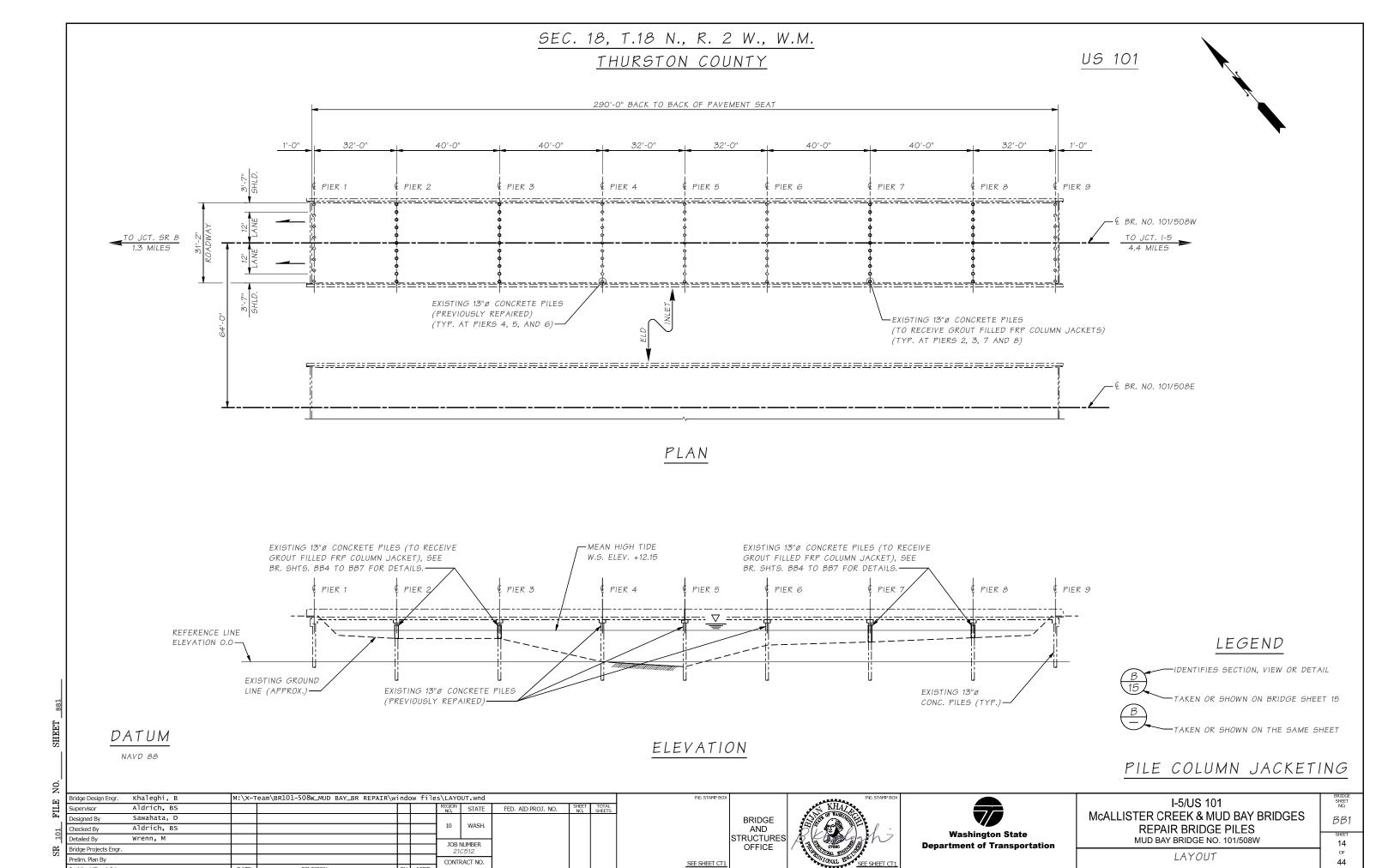
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McALLISTER CREEK & MUD BAY BRIDGES
REPAIR BRIDGE PILES
MUD BAY BRIDGE NO. 101/508E

FRP JACKET DETAILS 2 OF 2

BRIDGE SHEET NO.

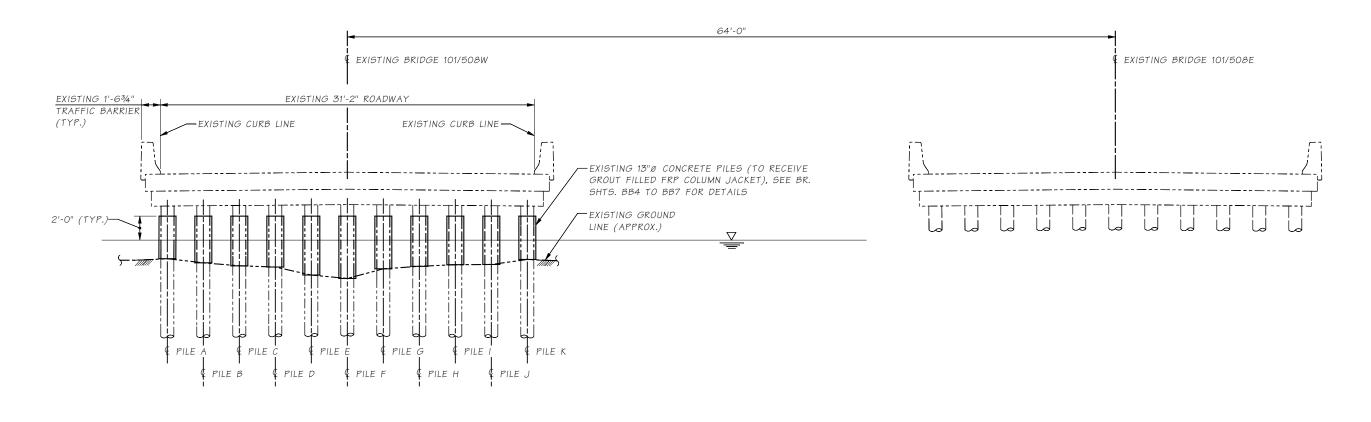
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13 of 44



Architect/Specialist

DATE



## TYPICAL SECTION

SHOWN NEAR PIER 3 PIERS 2, 7, AND 8 SIMILAR

# GENERAL NOTES

- 1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2022, AND AMENDMENTS.
- 2. THE DIMENSIONS SHOWN IN THE PLANS ARE BASED ON AS-BUILT PLANS. ALL RELEVANT DETAILS AND DIMENSIONS SHALL BE FIELD MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS AND PROCEEDING WITH CONSTRUCTION.

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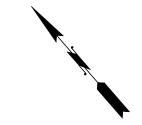
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REPAIR BRIDGE PILES
MUD BAY BRIDGE NO. 101/508W

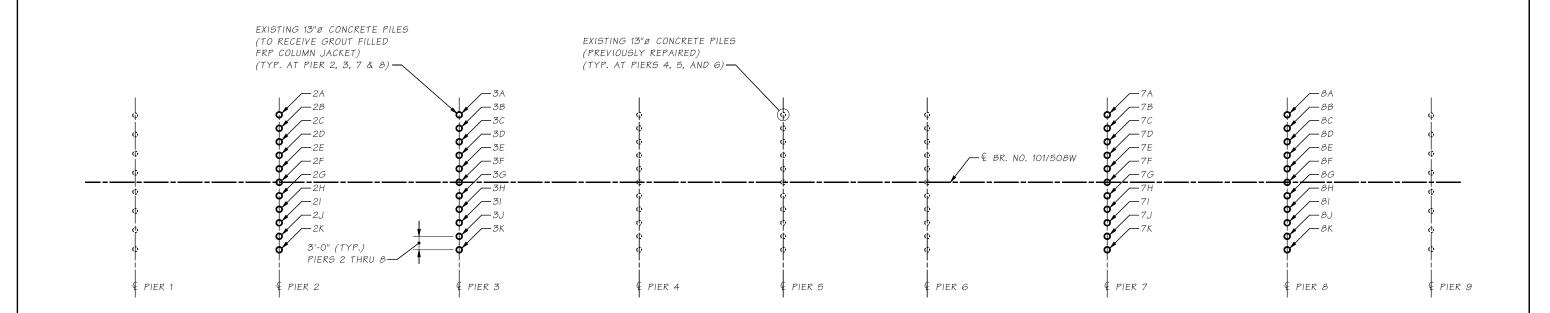
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GENERAL NOTES & TYPICAL SECTION

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# FOUNDATION LAYOUT

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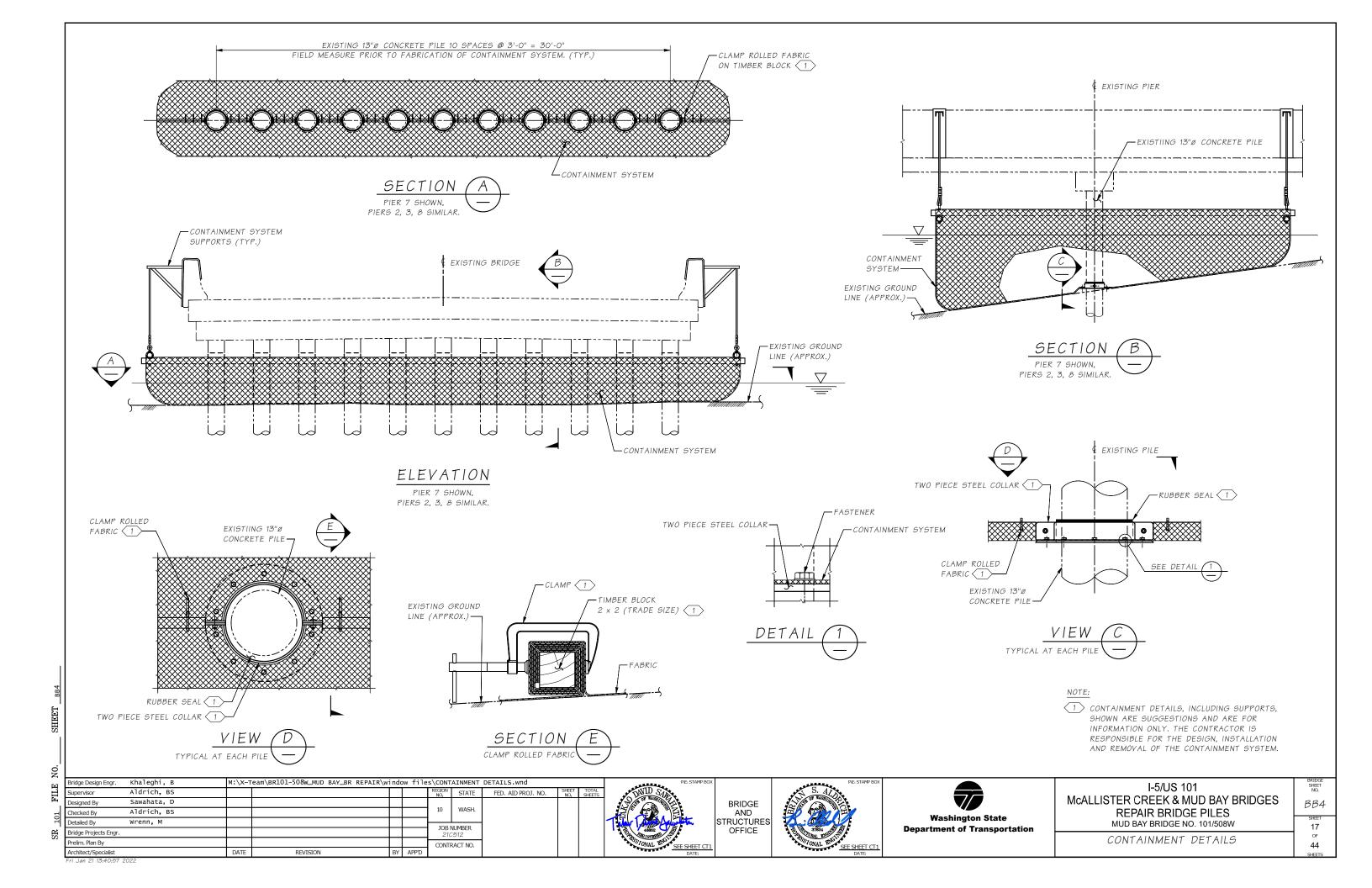


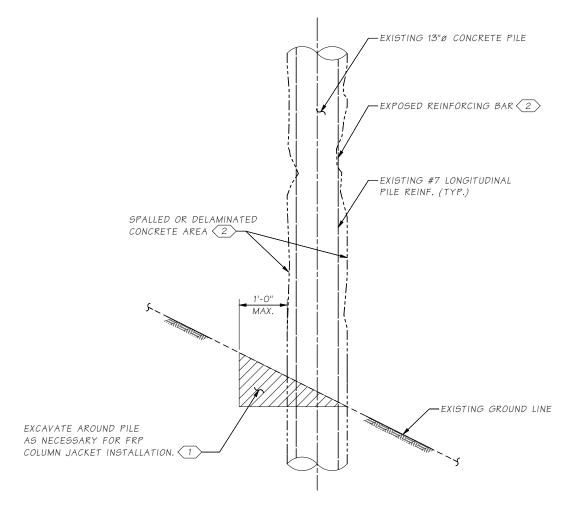


I-5/US 101 McALLISTER CREEK & MUD BAY BRIDGES REPAIR BRIDGE PILES MUD BAY BRIDGE NO. 101/508W
FOUNDATION LAYOUT

SHEET 16 OF 44

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## EXISTING CONDITION PILE PREPARATION DETAIL

EXISTING HOOP REINFORCING AND CONTAINMENT SYSTEM NOT SHOWN FOR CLARITY (TYPICAL 44 PILES)

#### PILE PREPARATION PROCEDURE

- 1. ASSEMBLE CONTAINMENT SYSTEM. (SEE BRIDGE SHEET BB4 FOR DETAILS.)
- 2. CLEAN AND PREPARE THE SURFACE OF THE PILES WITHIN THE LIMITS OF THE JACKET ASSEMBLY TO REMOVE MARINE GROWTH, DIRT, DEBRIS, AND LOOSE & UNSOUND CONCRETE.
- 3. REMOVE DEBRIS AND CONTAINMENT SYSTEM.
- 4. ASSEMBLE FRP COLUMN JACKET AROUND PILE. (SEE BRIDGE SHEET BB6 FOR DETAILS.)
- 5. COMPLETE INSTALLATION OF FRP COLUMN JACKET SYSTEM. (SEE BRIDGE SHEET BB6 FOR DETAILS.)

#### NOTES:

- 1 EXCAVATION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 2-09.3(3).
- 2 CONCRETE REMOVAL AND SURFACE PREPARATION (REMOVED CONCRETE SURFACE AND EXPOSED REINFORCING STEEL) SHALL BE IN ACCORDANCE TO STANDARD SPECIFICATIONS 6-01.16(2)A. CONTACT ENGINEER IF CONCRETE REMOVAL IS NECESSARY BEHIND EXPOSED REBAR.

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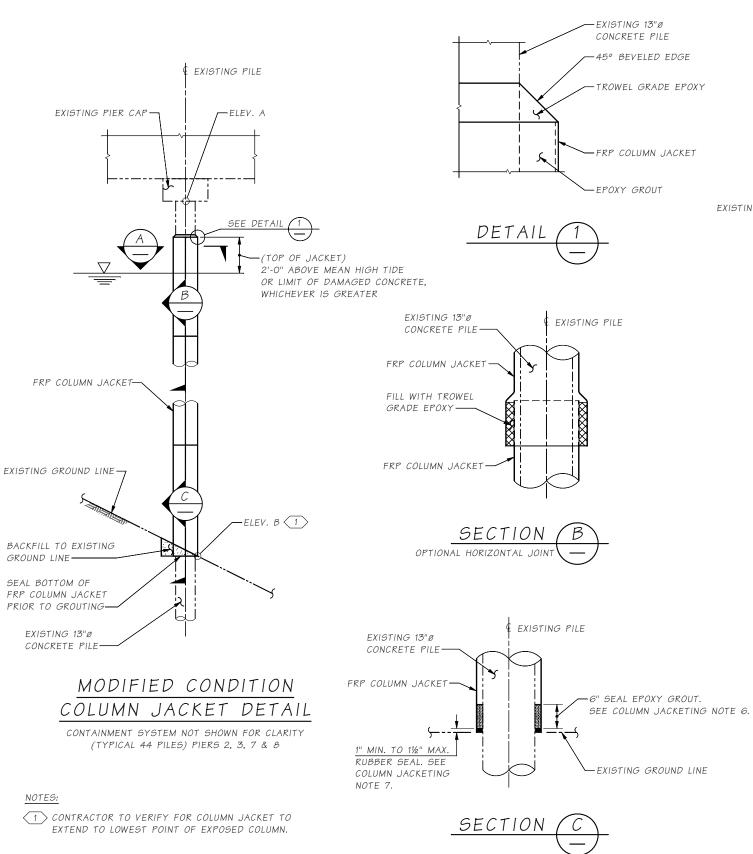


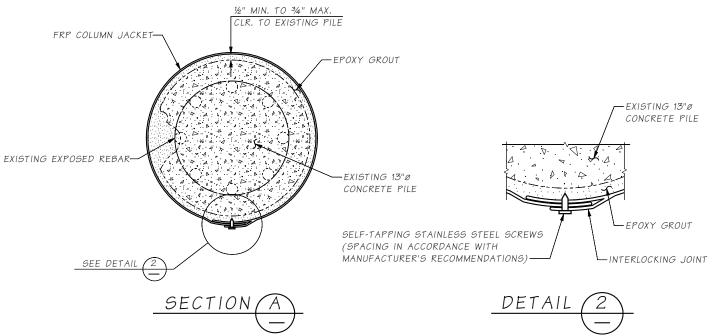
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PILE REPAIR DETAILS

18

ВВ5





#### COLUMN JACKETING NOTES

- 1. THE FIBERGLASS JACKET SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE DETAILS SHOWN HERE ARE FOR SUGGESTION ONLY. A DETAILED INSTALLATION PLAN SHALL BE SUBMITTED AS A TYPE 2 WORKING DRAWING.
- 2. ALL VOIDS BETWEEN FRP COLUMN JACKET AND EXISTING PILE SURFACE SHALL BE FILLED WITH EPOXY GROUT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 3. THE LOCATION AND NUMBER OF HORIZONTAL CONNECTIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 4. VERTICAL TONGUE & GROOVE CLOSURE SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DETAILS SHOWN ON THIS SHEET ARE FOR SUGGESTION ONLY.
- 5. GROUT INJECTION NOZZLES SHALL BE PROVIDED ON JACKET IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE REMOVED, SEALED, AND GROUND FLUSH AT COMPLETION OF GROUTING OPERATION.
- 6. THE SEAL AT THE BOTTOM OF THE JACKET SHALL BE FULLY SET IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS PRIOR TO GROUTING. THE JACKET MAY BE FILLED WITH FRESH WATER DURING SEAL CURING TO ACCOUNT FOR THE HEAD DIFFERENTIAL WITH THE CHANGING TIDE.
- 7. THE RUBBER SEAL HEIGHT SHALL BE TWICE THE THICKNESS OF THE CLEAR SPACE FOR THE GROUT BETWEEN THE JACKET AND PILE.
- 8. THE JACKET SHALL BE PIGMENTED WASHINGTON GRAY BY THE MANUFACTURER.

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I-5/US 101
McALLISTER CREEK & MUD BAY BRIDGES
REPAIR BRIDGE PILES
MUD BAY BRIDGE NO. 101/508W

FRP JACKET DETAILS 1 OF 2 ВВ6

19

BRIDGE	NO. 101	/508W	TABLE
COLUMN NUMBER	ELEV. A	ELEV. B	APPROX. JACKET LENGTH (FT.)
2A	14.95	11.24	2.9
2В	14.97	11.27	2.9
2C	15.01	11.34	2.8
2D	15.04	11.31	2.8
2E	15.06	11.30	2.9
2F	15.11	11.25	2.9
2 <i>G</i>	15.08	11.19	3.0
2H	15.03	11.29	2.9
21	14.98	11.04	3.1
2J	14.97	11.08	3.1
2K	14.94	11.39	2.8
3A	15.00	10.60	3.6
3B	15.03	10.26	3.9
3C	15.05	10.01	4.1
3D	15.08	9.91	4.2
3E	15.11	9.24	4.9
3F	15.15	8.96	5.2
3 <i>G</i>	15.12	9.76	4.4
3H	15.08	9.97	4.2
31	15.05	10.10	4.1
<b>3</b> J	15.01	10.12	4.0
3K	14.99	10.54	3.6

BRIDGE	NO. 101	1/508W	TABLE
COLUMN NUMBER	ELEV. A	ELEV. B	APPROX. JACKET LENGTH (FT.)
7A	14.98	10.69	3.5
78	15.00	10.76	3.4
7 <i>C</i>	15.02	10.76	3.4
70	15.05	10.82	3.3
7E	15.08	10.73	3.4
7F	15.11	10.73	3.4
7 <i>G</i>	15.09	10.84	3.3
7H	15.07	10.81	3.3
71	15.04	10.82	3.3
7J	15.00	10.81	3.3
7K	14.99	10.91	3.2
8A	15.01	11.17	3.0
88	15.03	11.19	3.0
8C	15.04	11.12	3.0
8D	15.07	11.02	3.1
8E	15.10	10.94	3.2
8F	15.13	10.72	3.4
8G	15.13	11.06	3.1
8H	15.09	11.06	3.1
81	15.06	11.18	3.0
8J	15.01	11.06	3.1
8K	14.97	11.50	2.6

Bridge Design Engr.	Khaleghi, B	M:\X-T	eam\BR101-508w_MUD BAY_BR REPAIR\	vindo	ow file	s\PILE	JACKET	DTL 2.wnd		
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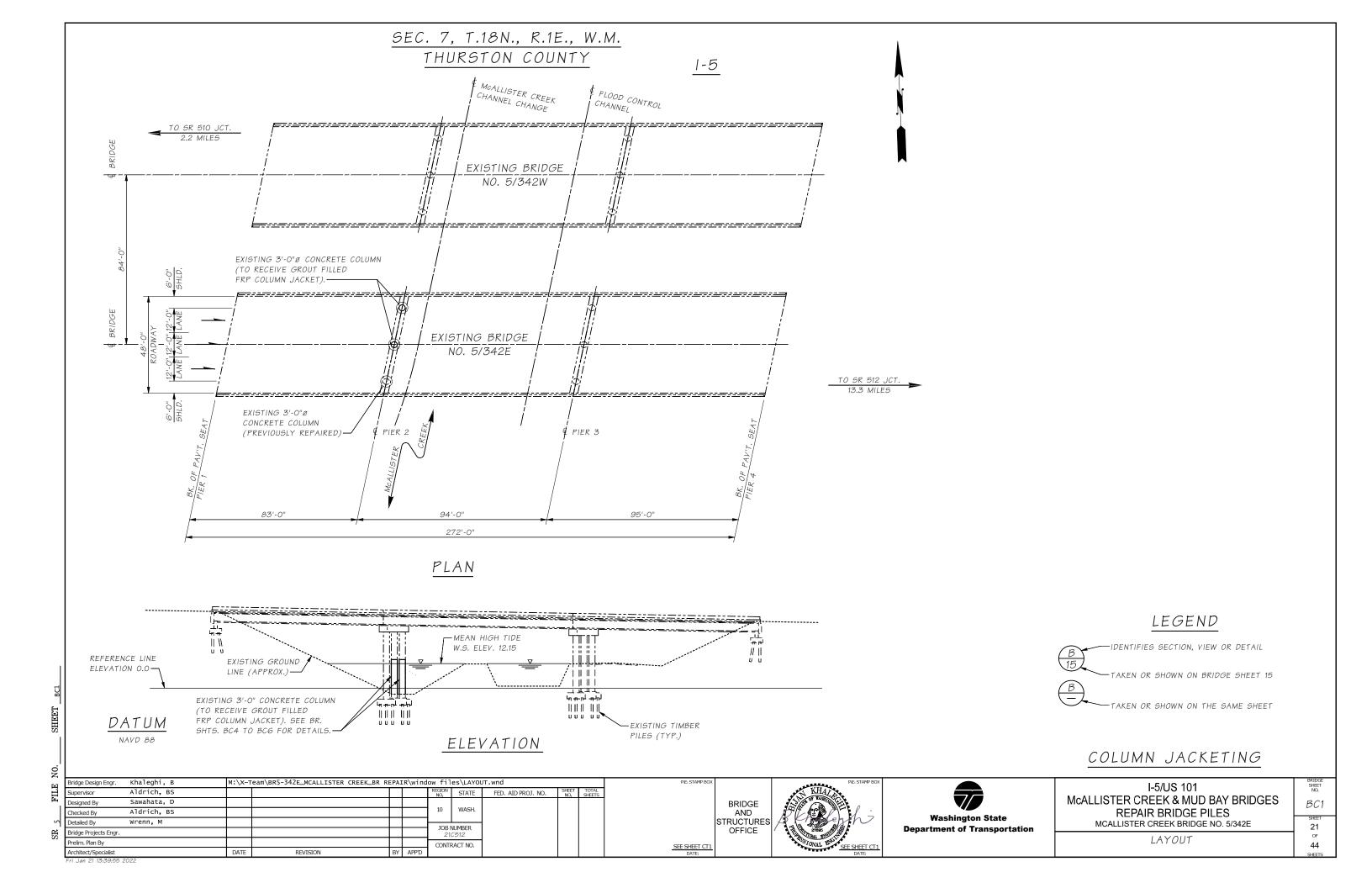
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MUD BAY BRIDGE NO. 101/508W

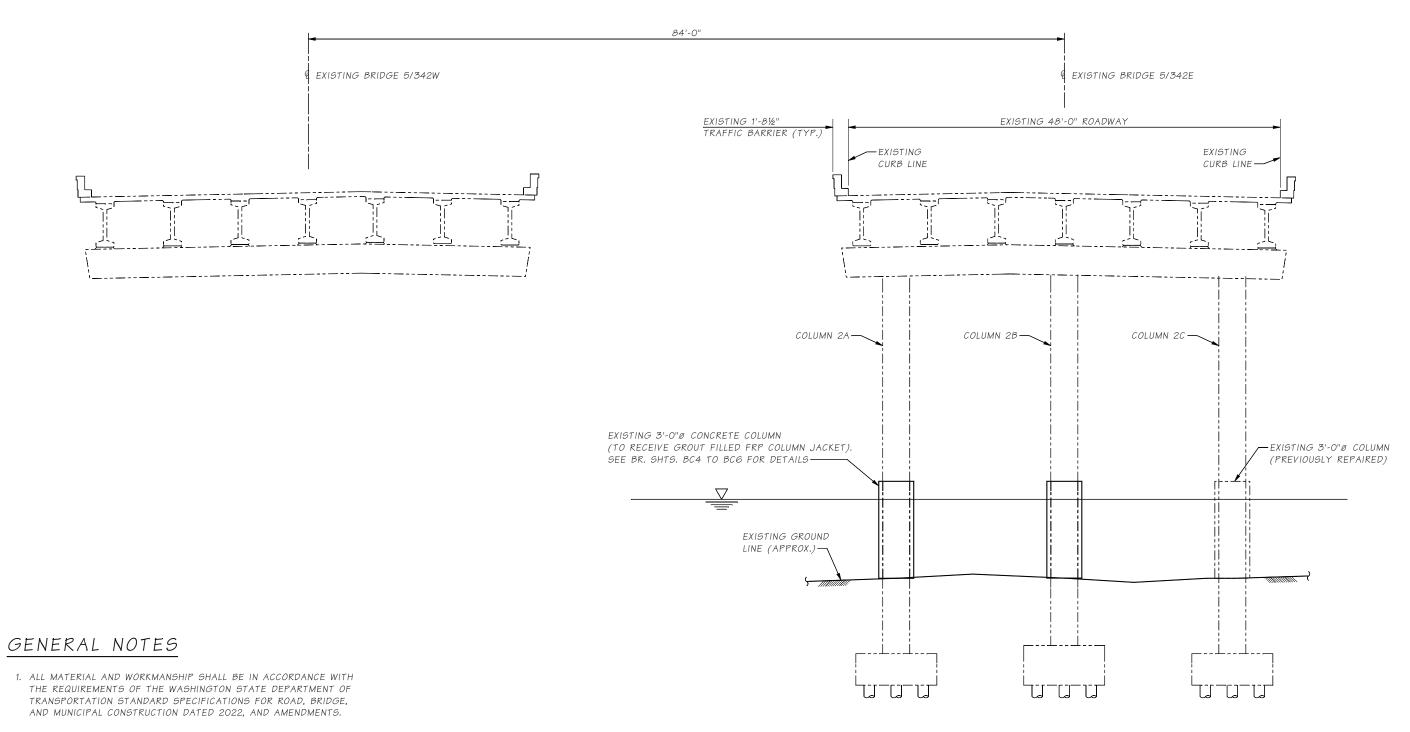
FRP JACKET DETAILS 2 OF 2

BRIDGE SHEET NO.

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2. THE DIMENSIONS SHOWN IN THE PLANS ARE BASED ON AS-BUILT
PLANS. ALL RELEVANT DETAILS AND DIMENSIONS SHALL BE FIELD
MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING

MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS AND PROCEEDING WITH CONSTRUCTION.

TYPICAL SECTION

SHOWN NEAR PIER 2

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MCALLISTER CREEK BRIDGE NO. 5/342E	

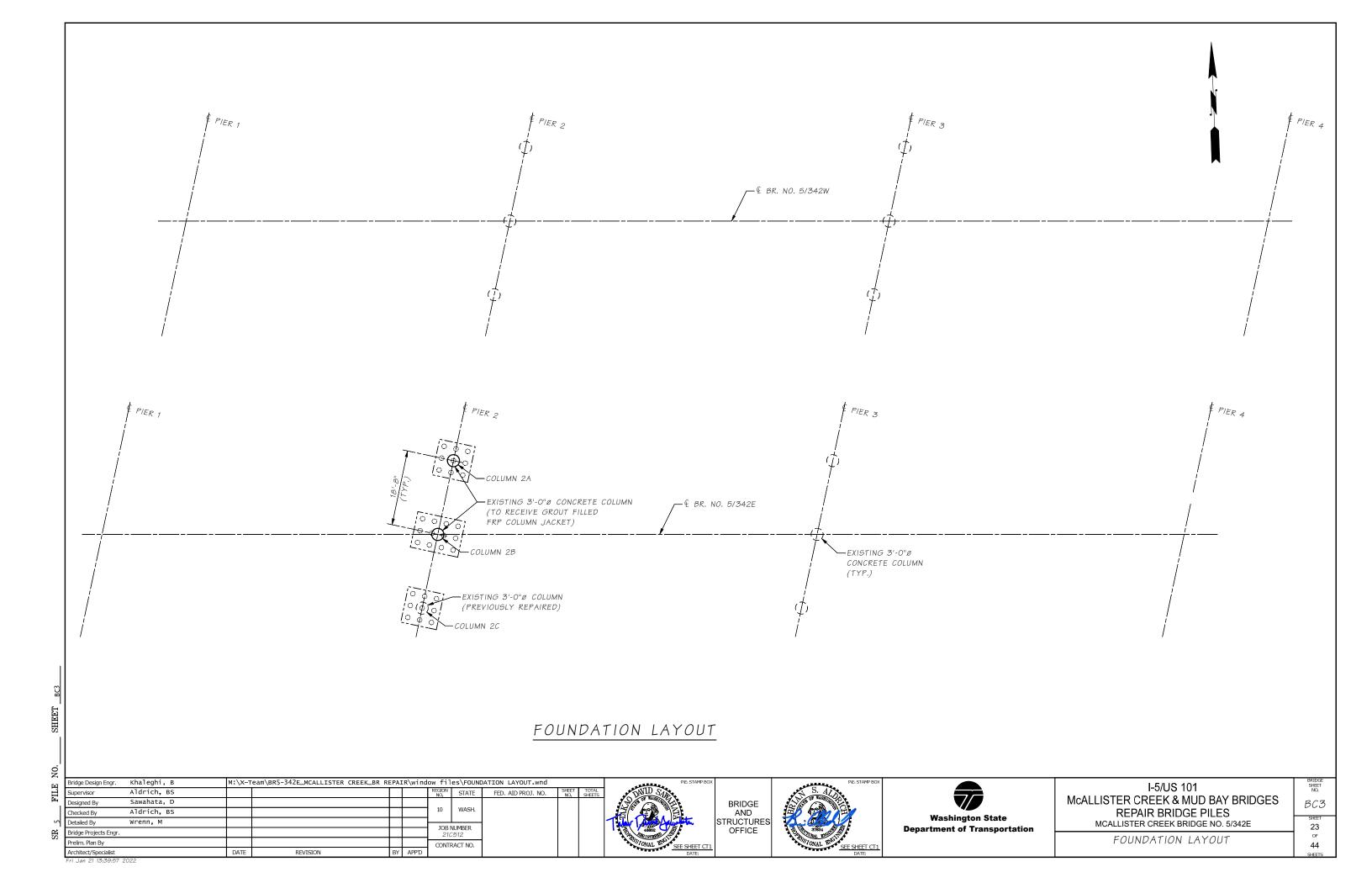
GENERAL NOTES & TYPICAL SECTION

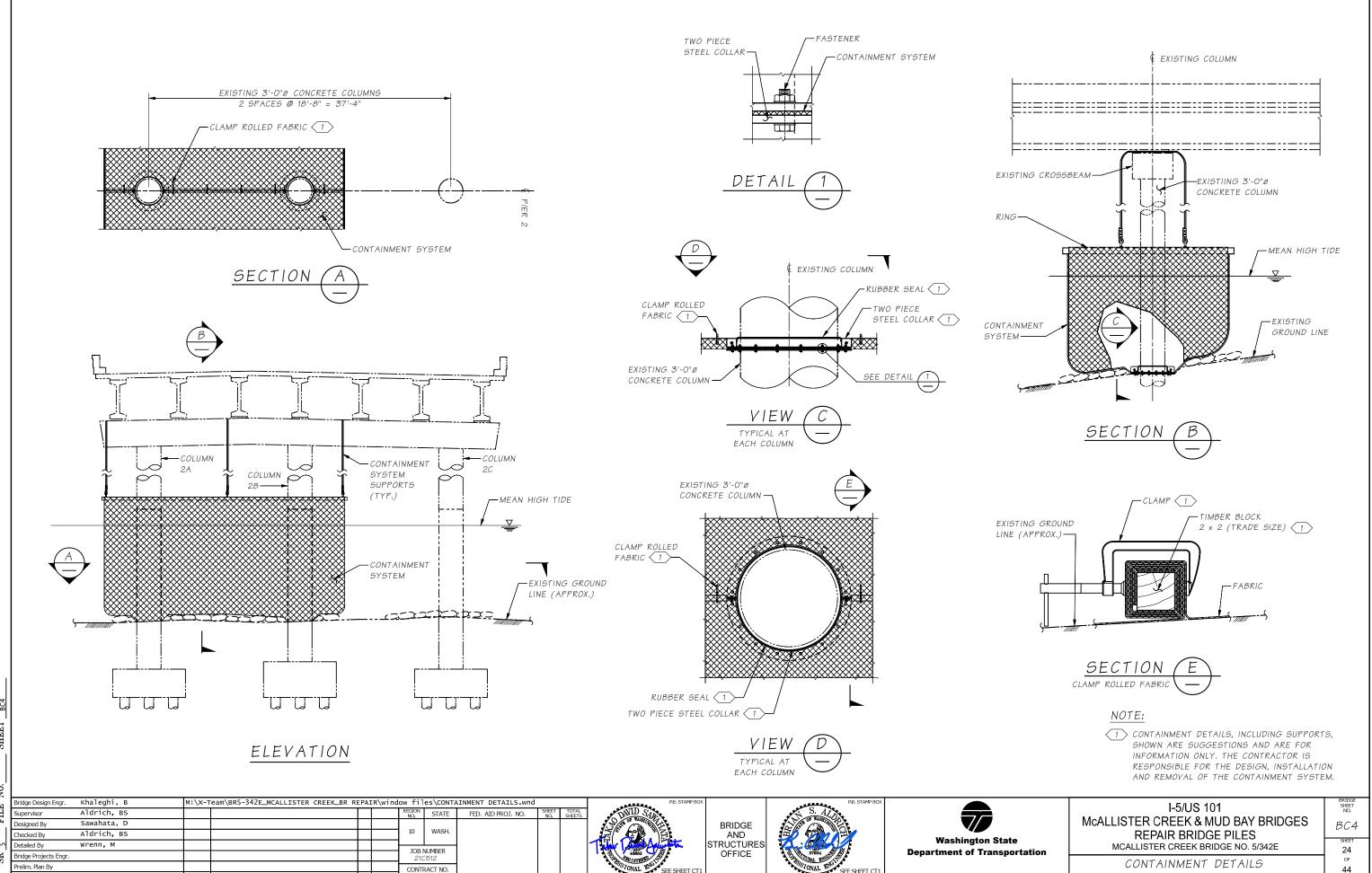
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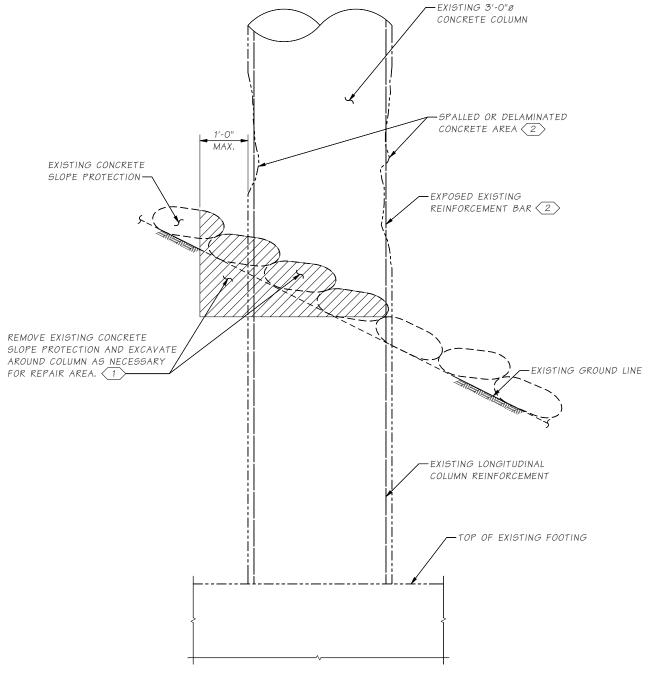




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# EXISTING CONDITION COLUMN PREPARATION DETAIL

EXISTING HOOP REINF. AND CONTAINMENT NOT SHOWN FOR CLARITY

#### COLUMN PREPARATION PROCEDURE

- 1. ASSEMBLE CONTAINMENT SYSTEM. (SEE BRIDGE SHEET BC4 FOR DETAILS.)
- 2. CLEAN AND PREPARE THE SURFACE OF THE COLUMNS WITHIN THE LIMITS OF THE JACKET ASSEMBLY TO REMOVE MARINE GROWTH, DIRT, DEBRIS, AND LOOSE & UNSOUND CONCRETE.
- 3. REMOVE DEBRIS AND CONTAINMENT SYSTEM.
- 4. ASSEMBLE FRP COLUMN JACKET AROUND COLUMN. (SEE BRIDGE SHEET BC6 FOR DETAILS.)
- 5. COMPLETE INSTALLATION OF FRP COLUMN JACKET SYSTEM. (SEE BRIDGE SHEET BC6 FOR DETAILS.)

#### NOTES:

- 1 EXCAVATION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 2-09.3(3).
- 2 CONCRETE REMOVAL AND SURFACE PREPARATION (REMOVED CONCRETE SURFACE AND EXPOSED REINFORCING STEEL) SHALL BE IN ACCORDANCE TO STANDARD SPECIFICATIONS 6-01.16(2)A.
  CONTACT ENGINEER IF CONCRETE REMOVAL IS NECESSARY BEHIND EXPOSED REBAR.

Bridge Design Engr. Khaleghi, B M:\X-Team\BR5-342E\_MCALLISTER CREEK\_BR REPAIR\window files\COL REPAIR DTL.wnd Aldrich, BS Supervisor ON STATE FED. AID PROJ. NO. Designed By Sawahata, D WASH. Aldrich, BS Checked By Detailed By Wrenn, M JOB NUMBER 21C512 Bridge Projects Engr. Prelim. Plan By CONTRACT NO. Architect/Specialist DATE REVISION



BRIDGE AND STRUCTURES OFFICE





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McALLISTER CREEK & MUD BAY BRIDGES
REPAIR BRIDGE PILES
MCALLISTER CREEK BRIDGE NO. 5/342E

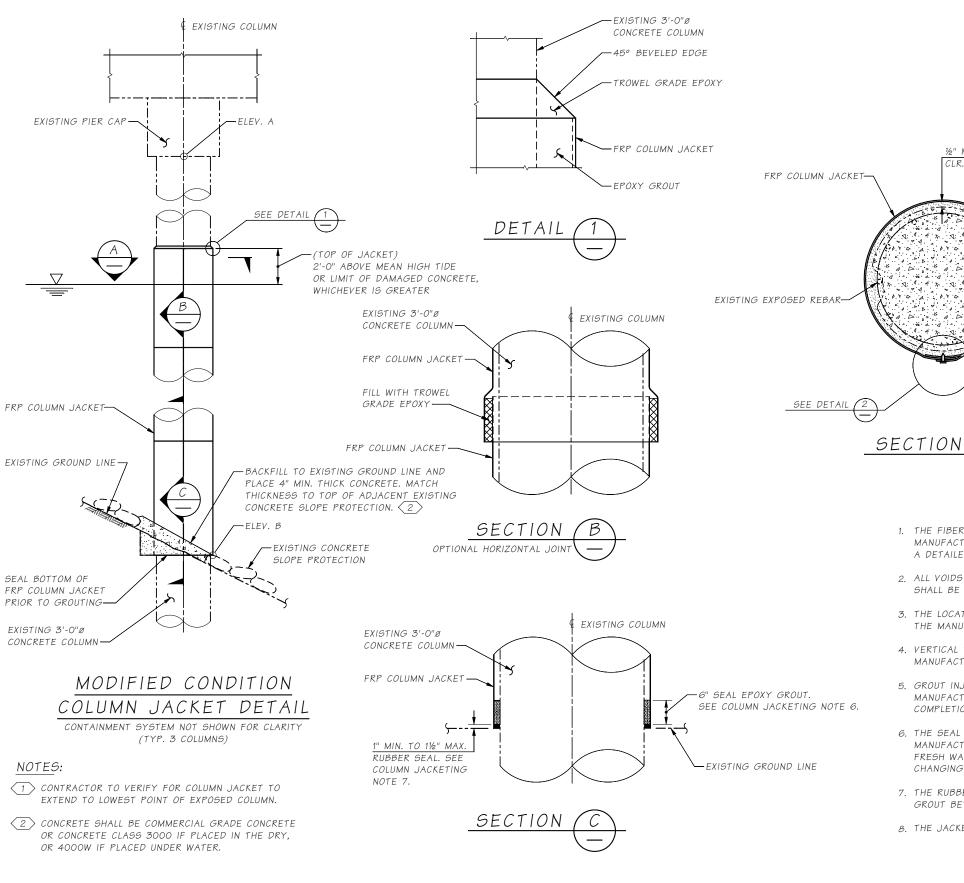
COLUMN REPAIR DETAILS

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BRIDGE NO. 5/342E TABLE APPROX. COLUMN NUMBER JACKET ELEV. A ELEV. B LENGTH (FT., 2A 30.22 3.41 10.7 2В 30.47 3.43 10.7

DETAIL

1/2" MIN. TO 3/4" MAX. CLR. TO EXISTING COLUMN -EPOXY GROUT -EXISTING 3'-0"Ø CONCRETE COLUMN EXISTING 3'-0"Ø CONCRETE COLUMN EPOXY GROUT SELF-TAPPING STAINLESS STEEL SCREWS (SPACING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS) --INTERLOCKING JOINT

## COLUMN JACKETING NOTES

- 1. THE FIBERGLASS JACKET SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE DETAILS SHOWN HERE ARE FOR SUGGESTION ONLY. A DETAILED INSTALLATION PLAN SHALL BE SUBMITTED AS A TYPE 2 WORKING DRAWING.
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- 8. THE JACKET SHALL BE PIGMENTED WASHINGTON GRAY BY THE MANUFACTURER.

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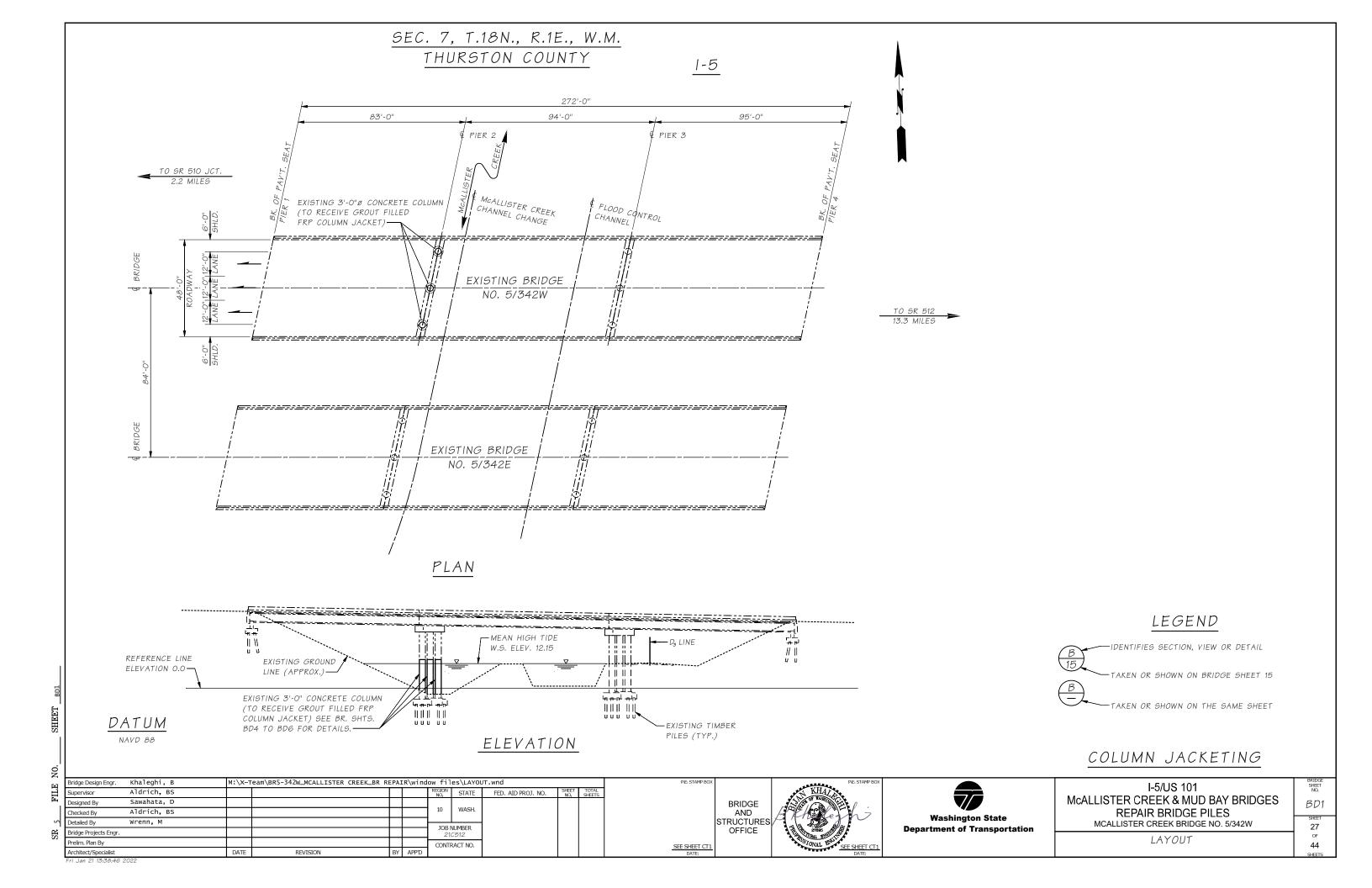


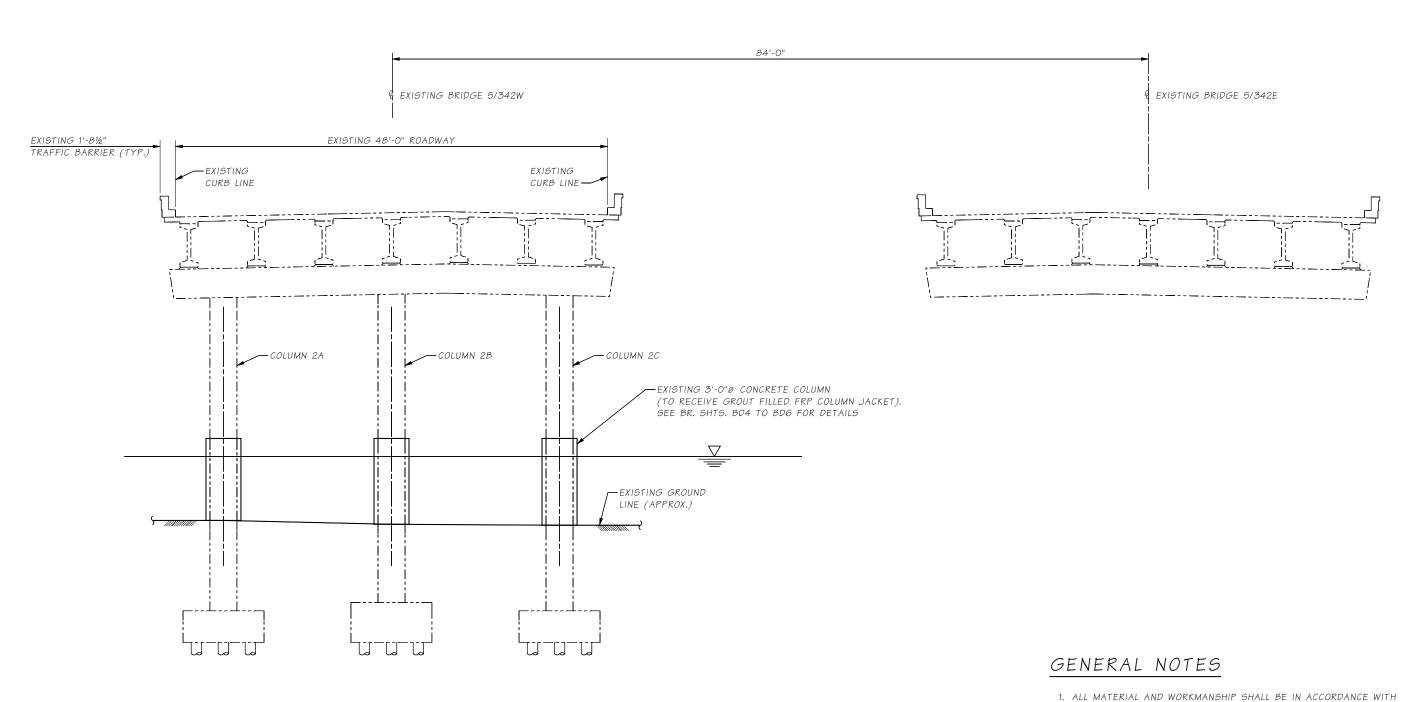
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	REPAIR BRIDGE PILES
	MCALLISTER CREEK BRIDGE NO. 5/342E
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FRP JACKET DETAILS

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BC6





#### TYPICAL SECTION SHOWN NEAR PIER 2

- THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2022, AND AMENDMENTS.
- 2. THE DIMENSIONS SHOWN IN THE PLANS ARE BASED ON AS-BUILT PLANS. ALL RELEVANT DETAILS AND DIMENSIONS SHALL BE FIELD MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS AND PROCEEDING WITH CONSTRUCTION.

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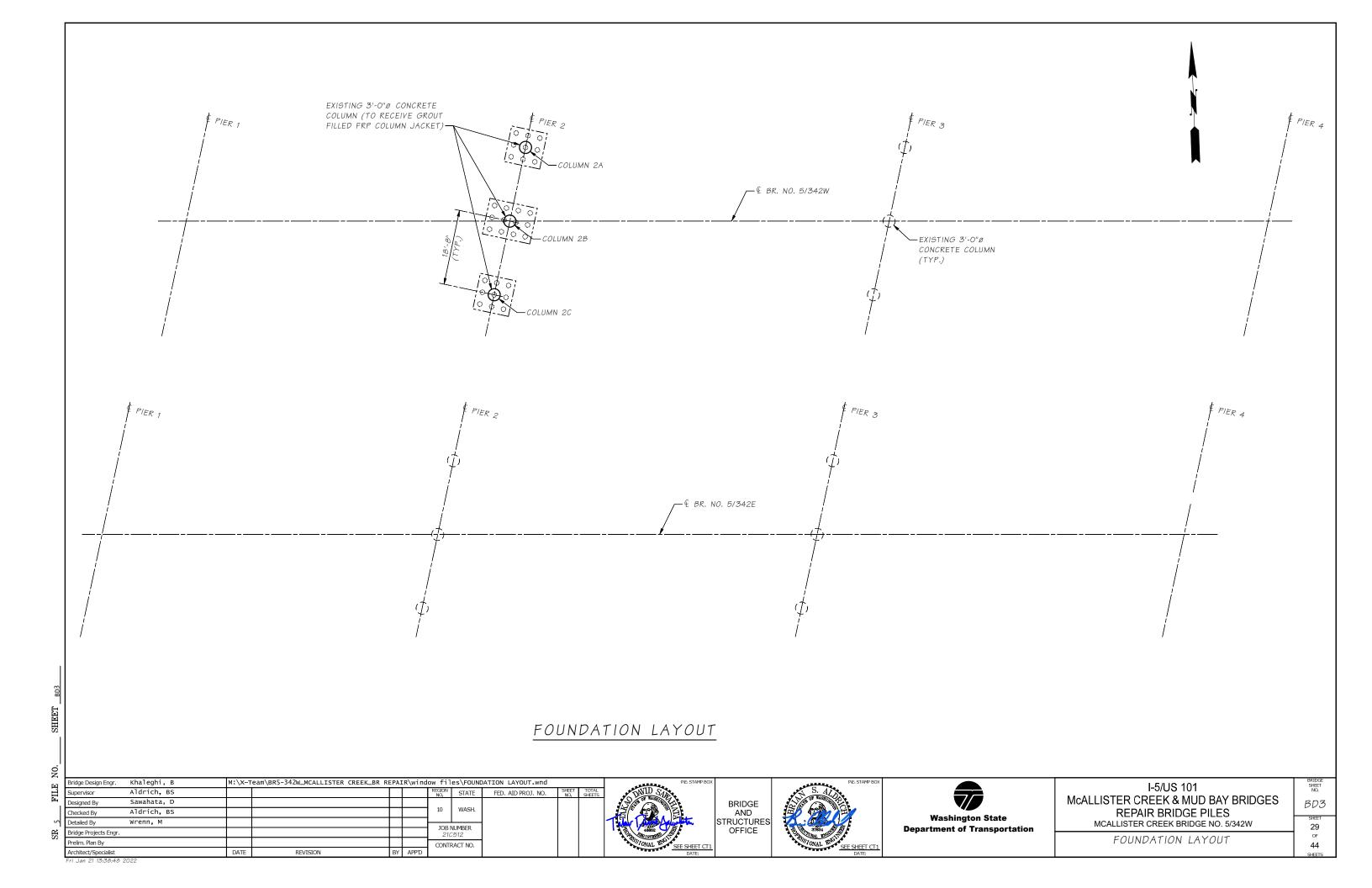


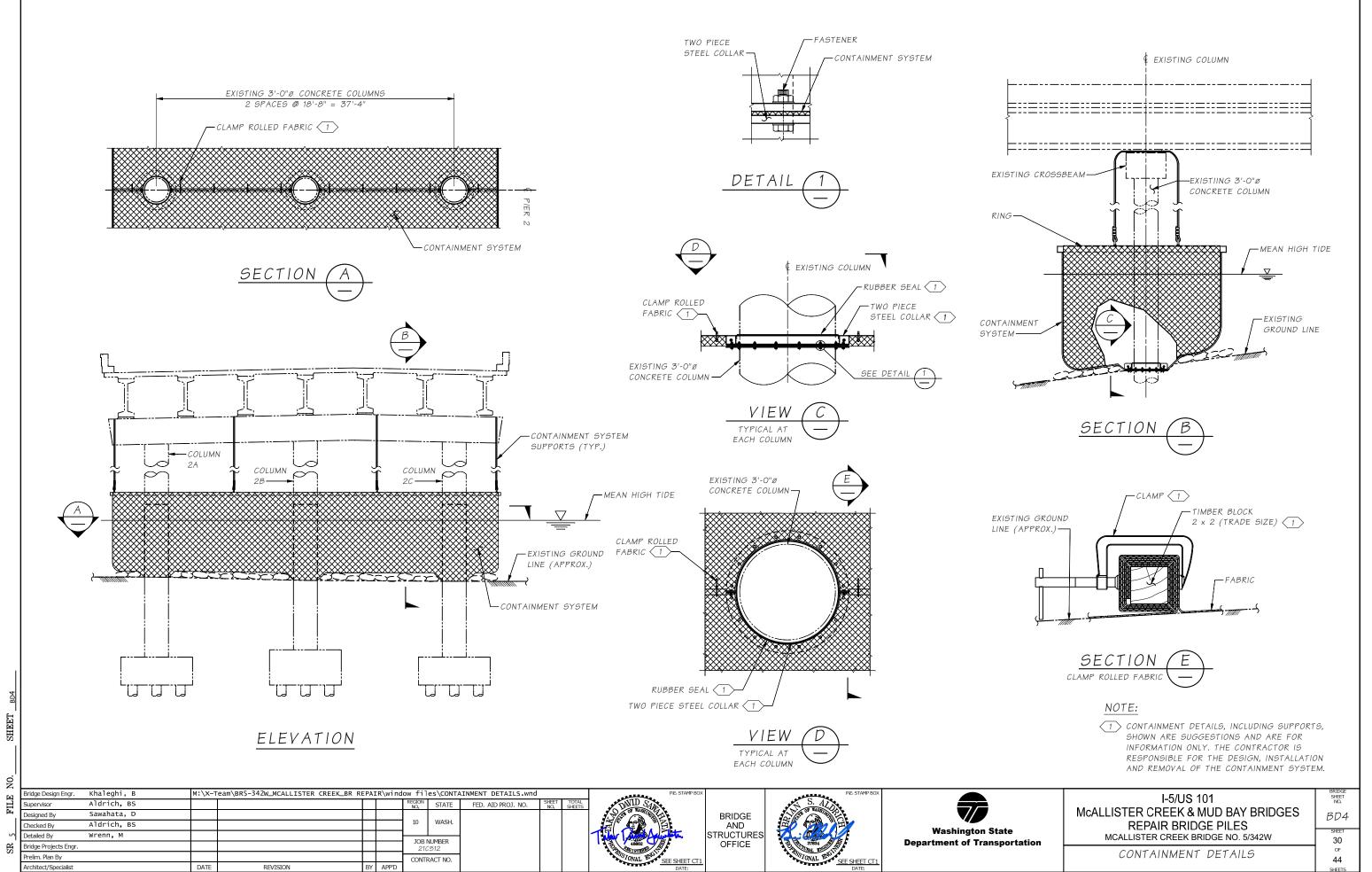


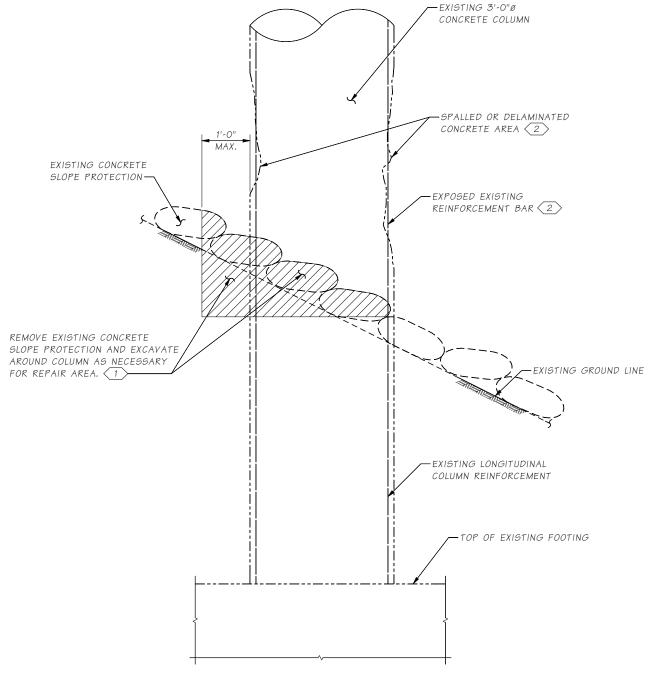
I-5/US 101 McALLISTER CREEK & MUD BAY BRIDGES REPAIR BRIDGE PILES MCALLISTER CREEK BRIDGE NO. 5/342W

GENERAL NOTES & TYPICAL SECTION

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# EXISTING CONDITION COLUMN PREPARATION DETAIL

EXISTING HOOP REINF. AND CONTAINMENT NOT SHOWN FOR CLARITY

#### COLUMN PREPARATION PROCEDURE

- 1. ASSEMBLE CONTAINMENT SYSTEM. (SEE BRIDGE SHEET BC4 FOR DETAILS.)
- 2. CLEAN AND PREPARE THE SURFACE OF THE COLUMNS WITHIN THE LIMITS OF THE JACKET ASSEMBLY TO REMOVE MARINE GROWTH, DIRT, DEBRIS, AND LOOSE & UNSOUND CONCRETE.
- 3. REMOVE DEBRIS AND CONTAINMENT SYSTEM.
- 4. ASSEMBLE FRP COLUMN JACKET AROUND COLUMN. (SEE BRIDGE SHEET BC6 FOR DETAILS.)
- 5. COMPLETE INSTALLATION OF FRP COLUMN JACKET SYSTEM. (SEE BRIDGE SHEET BC6 FOR DETAILS.)

#### NOTES:

- 1 EXCAVATION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 2-09.3(3).
- 2 CONCRETE REMOVAL AND SURFACE PREPARATION (REMOVED CONCRETE SURFACE AND EXPOSED REINFORCING STEEL) SHALL BE IN ACCORDANCE TO STANDARD SPECIFICATIONS 6-01.16(2)A. CONTACT ENGINEER IF CONCRETE REMOVAL IS NECESSARY BEHIND EXPOSED REBAR.

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BRIDGE AND STRUCTURES OFFICE



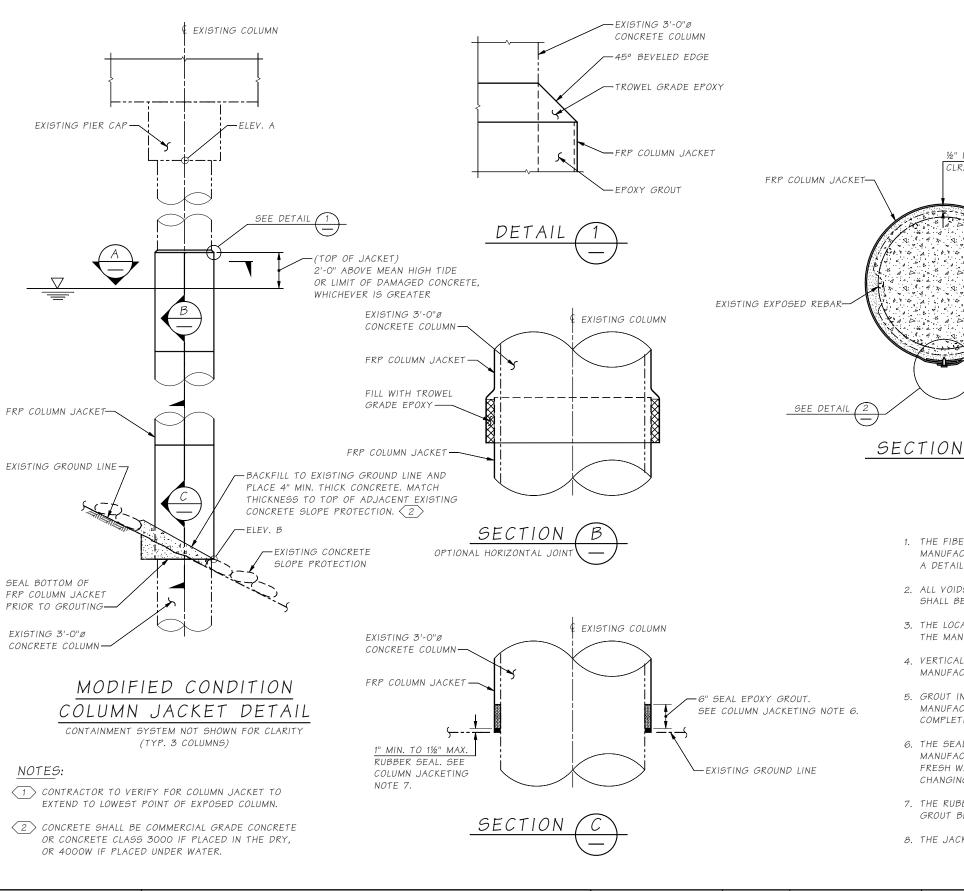


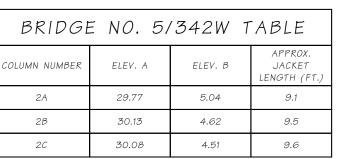
I-5/US 101 McALLISTER CREEK & MUD BAY BRIDGES REPAIR BRIDGE PILES MCALLISTER CREEK BRIDGE NO. 5/342W

COLUMN REPAIR DETAILS

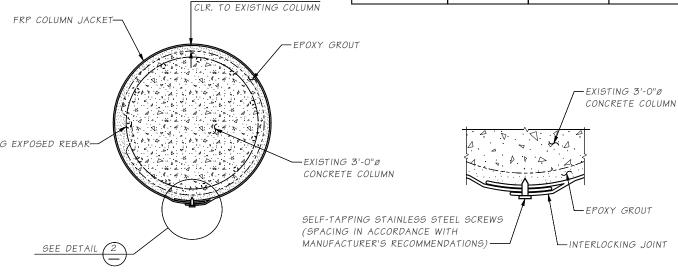
31 44

BD5





DETAIL



1/2" MIN. TO 3/4" MAX

# COLUMN JACKETING NOTES

- 1. THE FIBERGLASS JACKET SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE DETAILS SHOWN HERE ARE FOR SUGGESTION ONLY. A DETAILED INSTALLATION PLAN SHALL BE SUBMITTED AS A TYPE 2 WORKING DRAWING.
- 2. ALL VOIDS BETWEEN FRP COLUMN JACKET AND EXISTING PILE SURFACE SHALL BE FILLED WITH EPOXY GROUT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 3. THE LOCATION AND NUMBER OF HORIZONTAL CONNECTIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 4. VERTICAL TONGUE & GROOVE CLOSURE SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DETAIL SHOWN ON THIS SHEET IS FOR SUGGESTION ONLY.
- 5. GROUT INJECTION NOZZLES SHALL BE PROVIDED ON JACKET IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE REMOVED, SEALED AND GROUND FLUSH AT COMPLETION OF GROUTING OPERATION.
- 6. THE SEAL AT THE BOTTOM OF THE JACKET SHALL BE FULLY SET IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS PRIOR TO GROUTING. THE JACKET MAY BE FILLED WITH FRESH WATER DURING SEAL CURING TO ACCOUNT FOR THE HEAD DIFFERENTIAL WITH THE CHANGING TIDE.
- 7. THE RUBBER SEAL HEIGHT SHALL BE TWICE THE THICKNESS OF THE CLEAR SPACE FOR THE GROUT BETWEEN THE JACKET AND PILE.
- 8. THE JACKET SHALL BE PIGMENTED WASHINGTON GRAY BY THE MANUFACTURER.

	Bridge Design Engr.	Khaleghi, B	M:\X-T	eam\BR5-342w_MCALLISTER CREEK_BR R	EPAI	R\wind	ow fil	es\COL ]	ACKET DTL.wnd			
	Supervisor	Aldrich, BS			П		REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	1
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l	Checked By	Aldrich, BS			П		10	WASH.				Ι.
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	Bridge Projects Engr.							NUMBER 5512				۱ ۱
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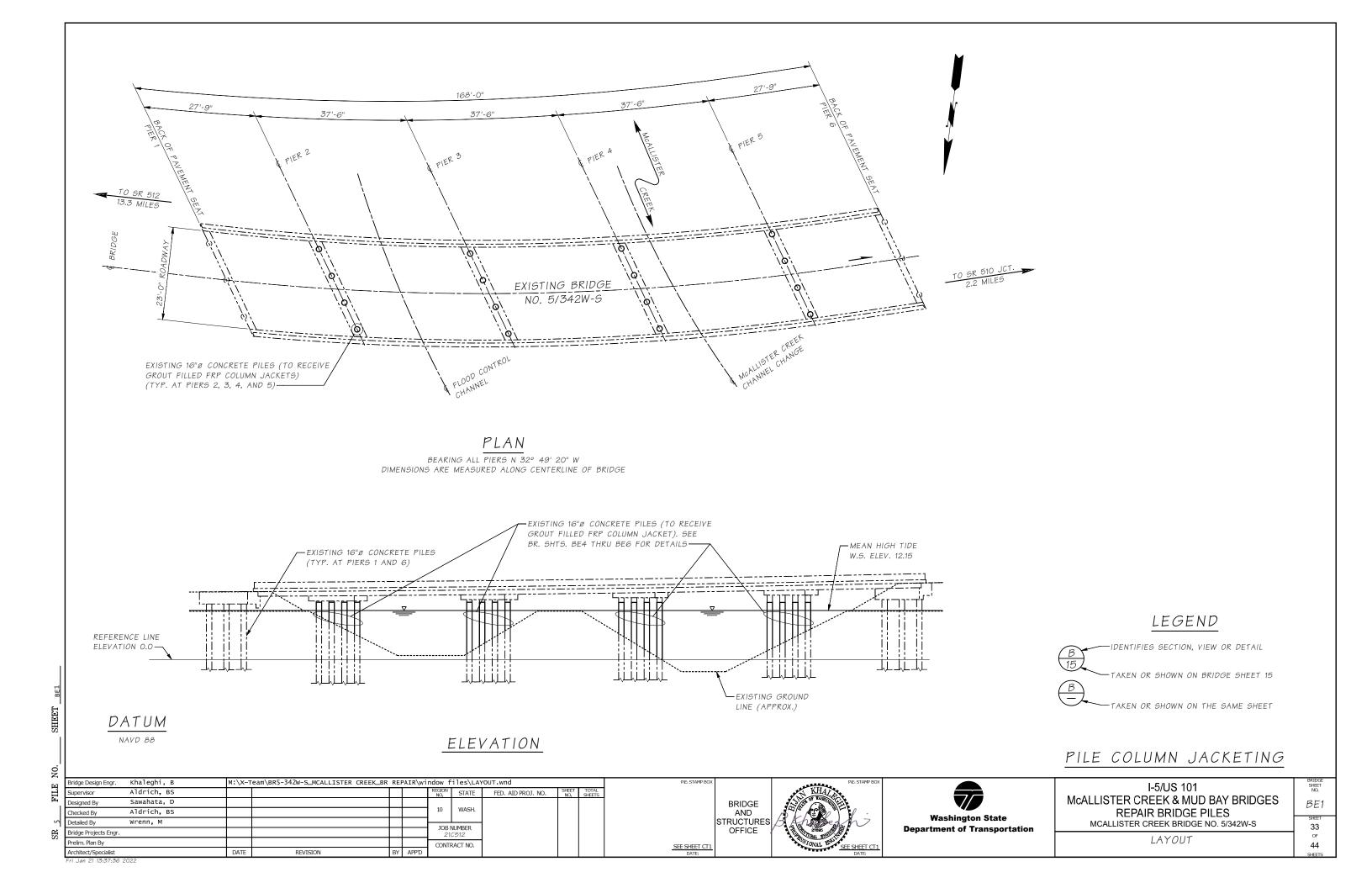


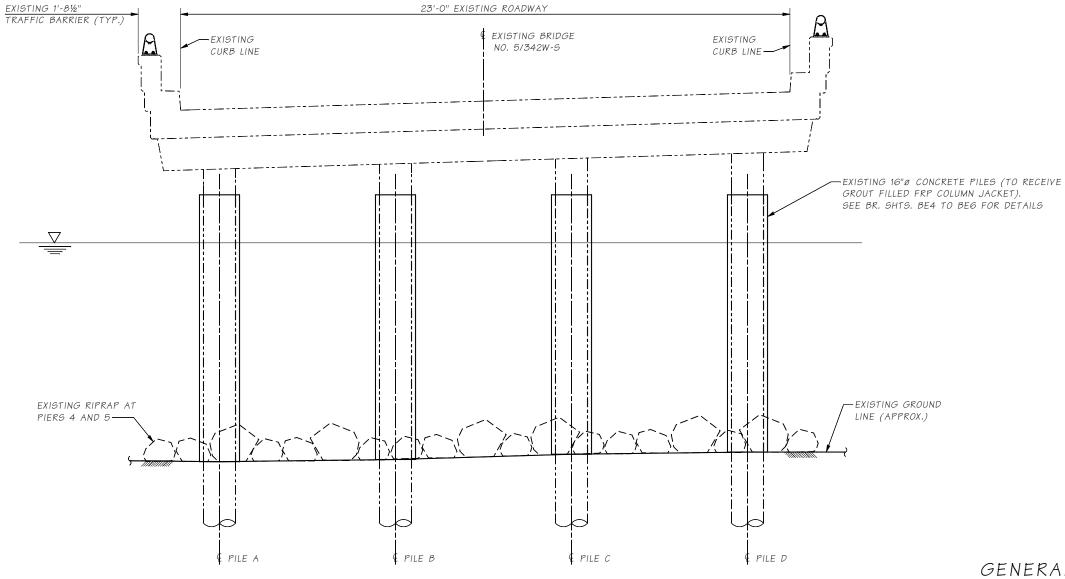
I-5/US 101
McALLISTER CREEK & MUD BAY BRIDGES
REPAIR BRIDGE PILES
MCALLISTER CREEK BRIDGE NO. 5/342W

FRP JACKET DETAILS

32

BD6





#### TYPICAL SECTION

SHOWN LOOKING WEST NEAR PIER 4, PIERS 2, 3 AND 5 ARE SIMILAR

#### GENERAL NOTES

- 1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2022, AND AMENDMENTS.
- 2. THE DIMENSIONS SHOWN IN THE PLANS ARE BASED ON AS-BUILT PLANS. ALL RELEVANT DETAILS AND DIMENSIONS SHALL BE FIELD MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS AND PROCEEDING WITH CONSTRUCTION.

	Bridge Design Engr.	Khaleghi, B	M:\X-T	Feam\BR5-342W-S_MCALLISTER CREEK_BR	REF	PAIR\wi	ndow f	iles\NOT	ES & TYP SEC.wnd			
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BRIDGE AND STRUCTURES OFFICE





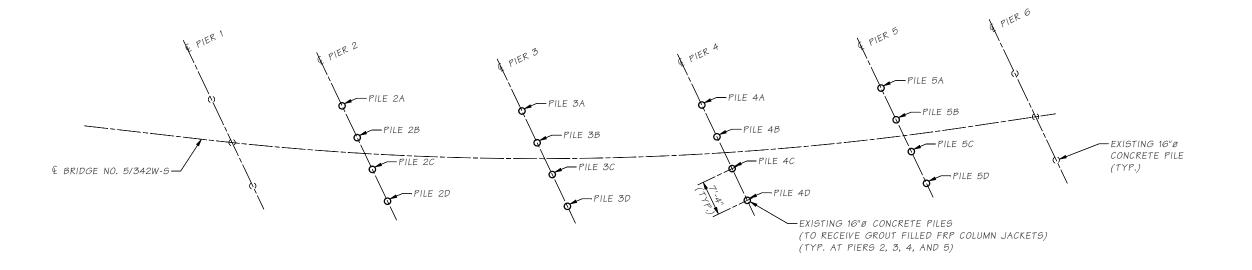
I-5/US 101 McALLISTER CREEK & MUD BAY BRIDGES REPAIR BRIDGE PILES MCALLISTER CREEK BRIDGE NO. 5/342W-S

GENERAL NOTES & TYPICAL SECTION

BE2

34 OF





## FOUNDATION LAYOUT

Bridge Design Engr. Khaleghi, B M:\X-Team\BR5-342W-S\_MCALLISTER CREEK\_BR REPAIR\window files\FOUNDATION LAYOUT.wnd REGION STATE Aldrich, BS FED. AID PROJ. NO. SHEET TOTAL SHEETS Supervisor Sawahata, D Designed By WASH. Aldrich, BS Checked By Wrenn, M Detailed By JOB NUMBER 21C512 Bridge Projects Engr. Prelim. Plan By CONTRACT NO. REVISION DATE



BRIDGE AND STRUCTURES OFFICE

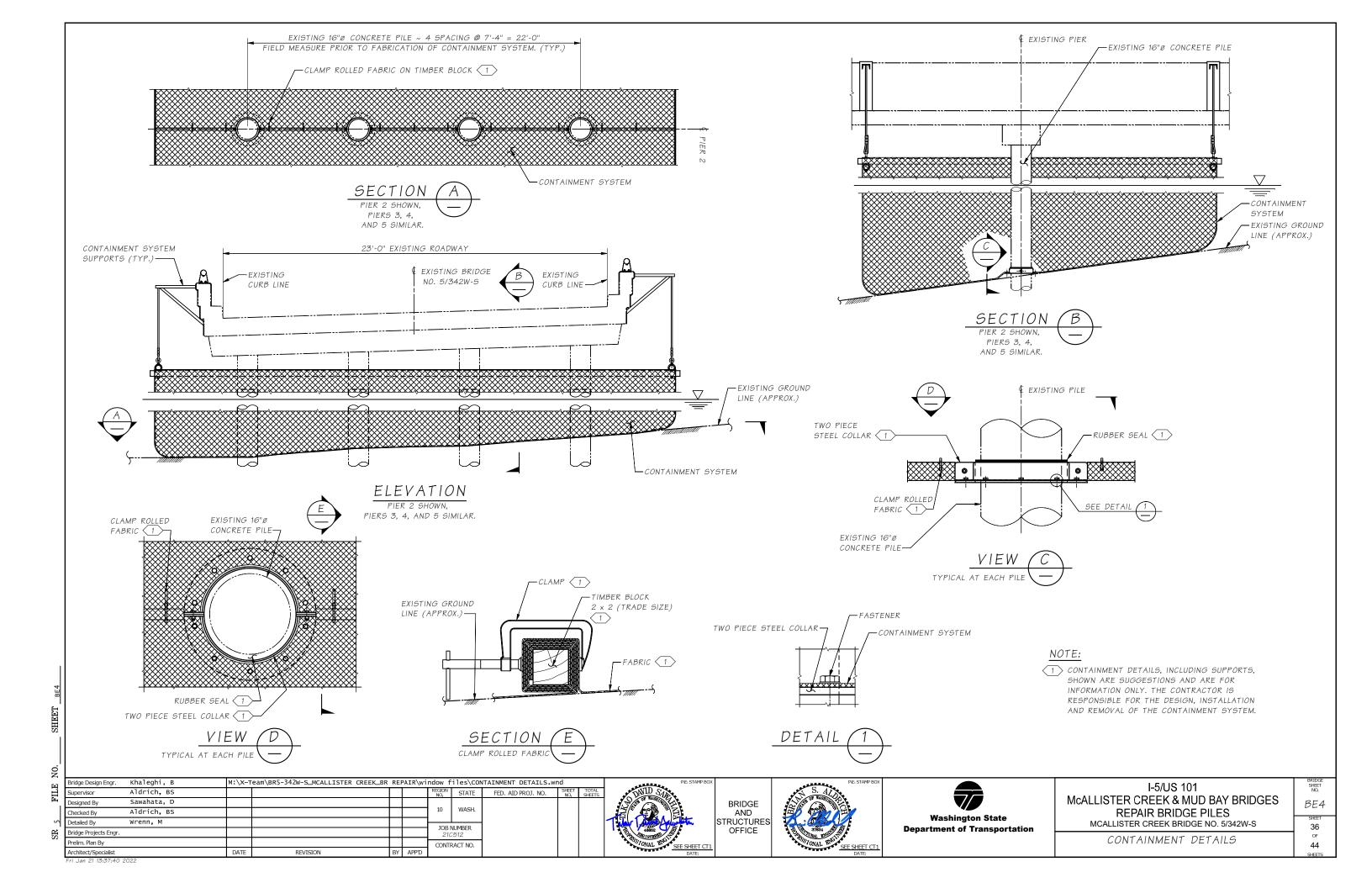


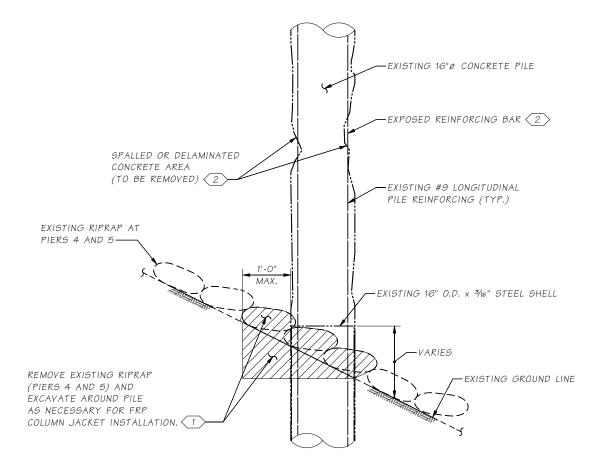
I-5/US 101
McALLISTER CREEK & MUD BAY BRIDGES
REPAIR BRIDGE PILES
MCALLISTER CREEK BRIDGE NO. 5/342W-S
FOUNDATION LAYOUT

BE3 35 OF

BRIDGE SHEET NO.

Architect/Specialist
Fri Jan 21 13:37:39 2





# EXISTING CONDITION PILE PREPARATION DETAIL

EXISTING HOOP REINFORCING AND CONTAINMENT SYSTEM NOT SHOWN FOR CLARITY. (TYPICAL 16 PILES)

#### PILE PREPARATION PROCEDURE

- 1. ASSEMBLE CONTAINMENT SYSTEM. (SEE BR. SHT. BE4 FOR DETAILS.)
- CLEAN AND PREPARE THE SURFACE OF THE PILES WITHIN THE LIMITS OF THE JACKET
  ASSEMBLY TO REMOVE MARINE GROWTH, DIRT, DEBRIS, AND LOOSE & UNSOUND CONCRETE.
- 3. REMOVE DEBRIS AND CONTAINMENT SYSTEM.
- 4. ASSEMBLE FRP COLUMN JACKET AROUND PILE. (SEE BR. SHT. BEG FOR DETAILS.)
- 5. COMPLETE INSTALLATION OF FRP COLUMN JACKET SYSTEM. (SEE BR. SHT. BEG FOR DETAILS.)

#### NOTES:

- 1 EXCAVATION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 2-09.3(3).
- 2 CONCRETE REMOVAL AND SURFACE PREPARATION (REMOVED CONCRETE SURFACE AND EXPOSED REINFORCING STEEL) SHALL BE IN ACCORDANCE TO STANDARD SPECIFICATIONS 6-01.16(2)A.
  CONTACT ENGINEER IF CONCRETE REMOVAL IS NECESSARY BEHIND EXPOSED REBAR.

Bridge Design Engr.	Khaleghi, B	M:\X-T	eam\BR5-342W-S_MCALLISTER CREEK_B	R RE	PAIR\wi	ndow f	iles\PIL	E REPAIR DTL.wnd		
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BRIDGE AND STRUCTURES OFFICE





I-5/US 101
McALLISTER CREEK & MUD BAY BRIDGES
REPAIR BRIDGE PILES
MCALLISTER CREEK BRIDGE NO. 5/342W-S

PILE REPAIR DETAILS

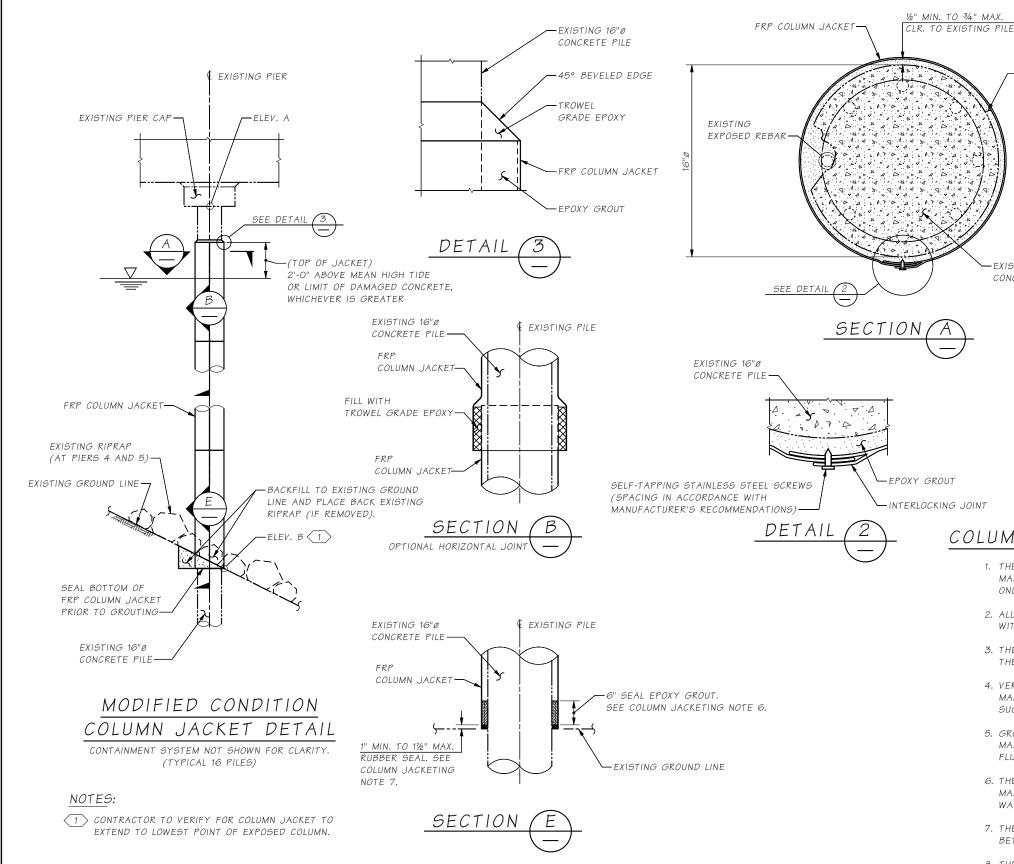
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BRIDGE
SHEET
NO.

BE5
SHEET
37

44



BRIDGE	NO. 5/3	342W-S	TABLE
PILE NUMBER	ELEV. A	ELEV. B	APPROX. JACKET LENGTH (FT.)
2A	14.47	3.46	10.7
28	14.70	3.12	11.0
2C	14.90	3.34	10.8
2D	15.07	3.43	10.7
3A	14.84	13.32	0.8
3B	15.06	10.58	3.6
3C	15.29	8.17	6.0
3D	15.53	10.62	<b>3.</b> 5
4A	15.20	3.03	11.1
48	15.47	3.67	10.5
4C	15.69	3.78	10.4
4D	15.79	4.41	9.7
5A	15.90	10.21	3.9
5B	16.10	10.31	3.8
5C	16.33	10.31	3.8
5D	16.50	9.31	4.8

#### COLUMN JACKETING NOTES

-EPOXY GROUT

EXISTING 16"Ø

CONCRETE PILE

- 1. THE FIBERGLASS JACKET SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE DETAILS SHOWN HERE ARE FOR SUGGESTION ONLY. A DETAILED INSTALLATION PLAN SHALL BE SUBMITTED AS A TYPE 2 WORKING DRAWING.
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- 5. GROUT INJECTION NOZZLES SHALL BE PROVIDED ON JACKET IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE REMOVED, SEALED, AND GROUND FLUSH AT COMPLETION OF GROUTING OPERATION.
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- 8. THE JACKET SHALL BE PIGMENTED WASHINGTON GRAY BY THE MANUFACTURER.

	Bridge Design Engr.	Khaleghi, B	M:\X-T	Feam\BR5-342w-S_MCALLISTER CREEK_BR	REF	PAIR\wi	ndow f	iles\PIL	E JACKET DTL.wnd			П
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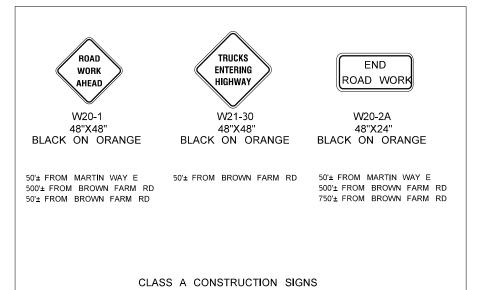


I-5/US 101
McALLISTER CREEK & MUD BAY BRIDGES
REPAIR BRIDGE PILES
MCALLISTER CREEK BRIDGE NO. 5/342W-S

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FRP JACKET DETAILS	1 .						
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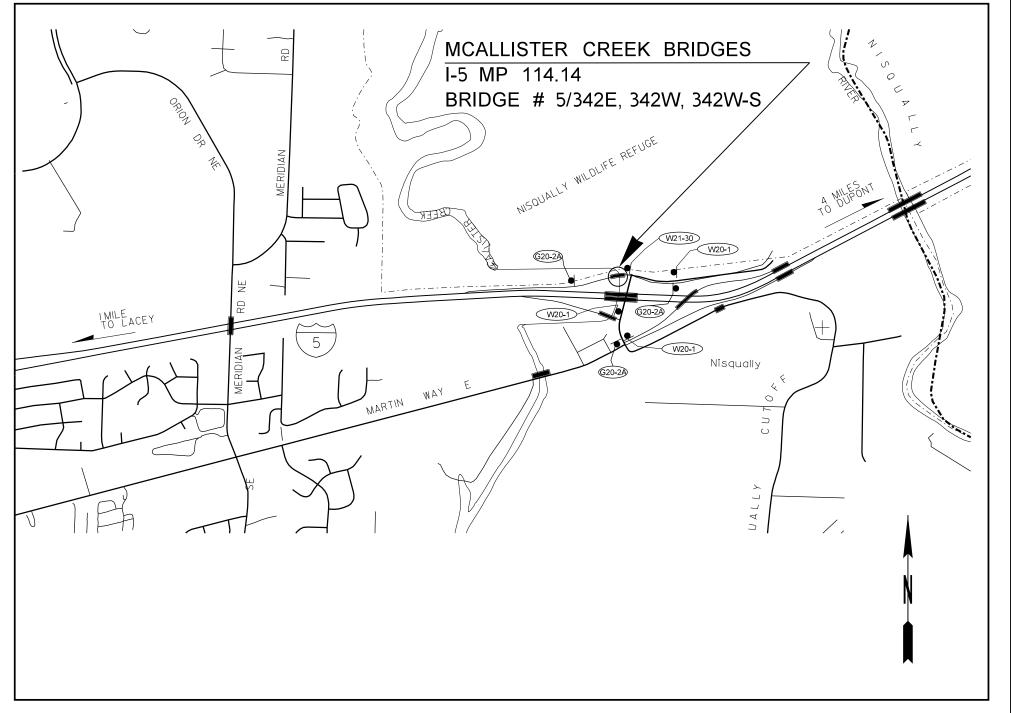


#### NOTES

- 1. SEE STANDARD PLAN K-80.10 FOR CLASS A CONSTRUCTION SIGNING INSTALLATION.
- 2. ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS OR IN COORDINATION WITH OTHER PROJECTS.

#### LEGEND

■ SIGN LOCATION - POST MOUNT (CLASS "A")

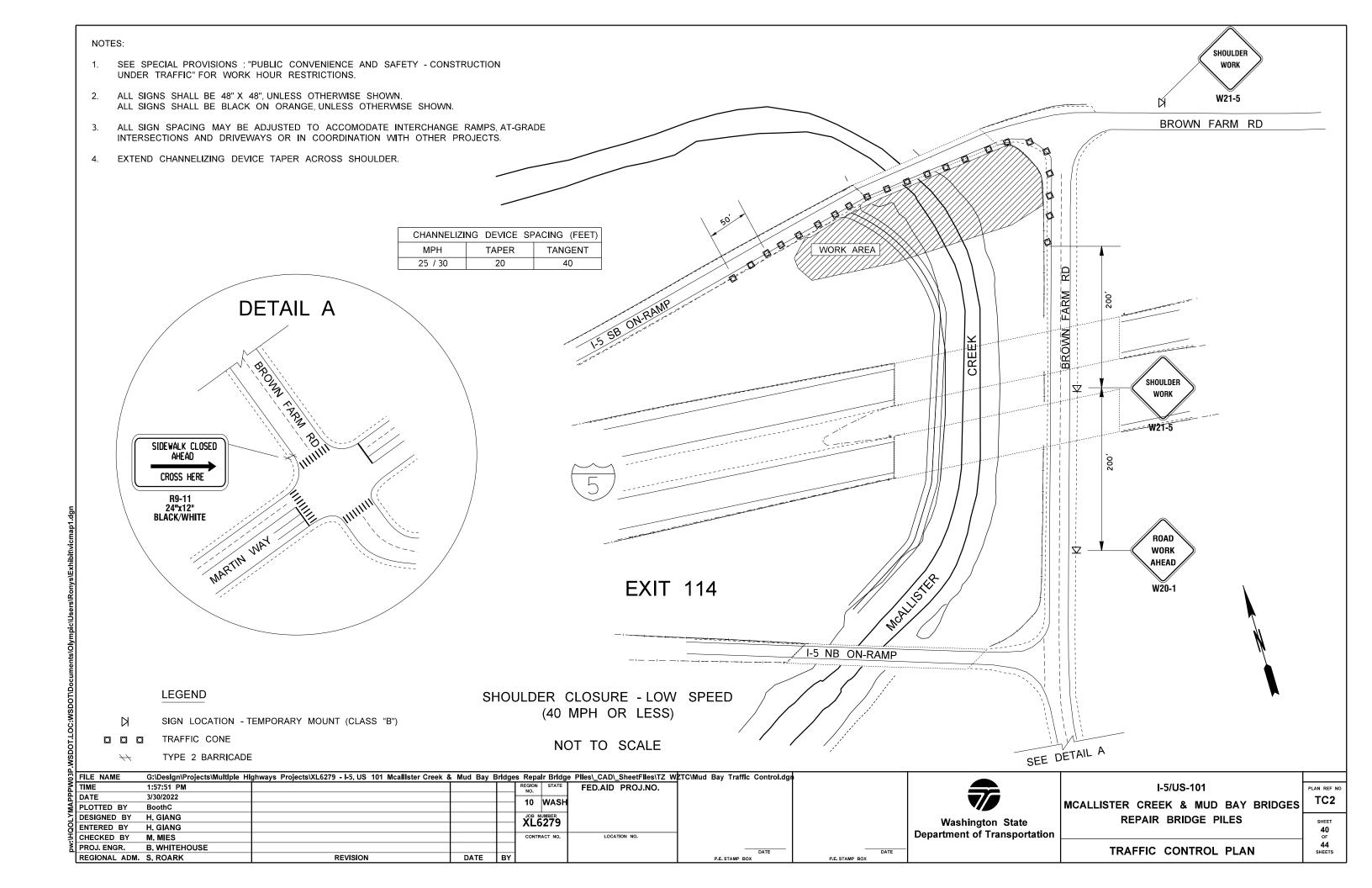


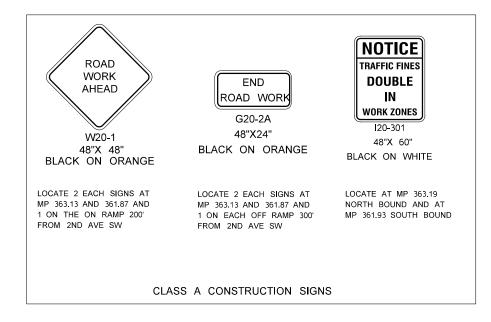
# MCALLISTER CREEK BRIDGE CLASS A SIGNING PLAN

#### NOT TO SCALE

FILE NAME	G:\Design\Projects\Multiple I	Highways Projects\XL6279 - I-5, US 101 Mcallister Creek	& Mud Bay	Bridge	es Repair Bridg	ge Plles\_CAD\_SheetFlles\TZ W	/ZTC∖Mud Bay Traffic Control.dgr	<b>†</b>			
TIME	1:57:27 PM				REGION STATE	FED.AID PROJ.NO.				I-5/US-101	PLAN REF
DATE	3/30/2022				10 WASH	1					. ТС
PLOTTED BY	BoothC				1 TU WASE	1				MCALLISTER CREEK & MUD BAY BRIDGES	, '`
DESIGNED BY	H. GIANG				JOB NUMBER XL6279				Machineton State	REPAIR BRIDGE PILES	SHEE
ENTERED BY	H. GIANG				XL62/9				Washington State		39
CHECKED BY	M. MIES				CONTRACT NO.	LOCATION NO.	1		Department of Transportation		OF
PROJ. ENGR.	B. WHITEHOUSE				1		DATE	DATE		ADVANCE SIGN PLAN	44
REGIONAL ADM	L S ROARK	REVISION	DATE	BY	1		PE STAMP BOX	DATE PE STAMP BOX		ADVANCE SIGN FLAN	SHEET

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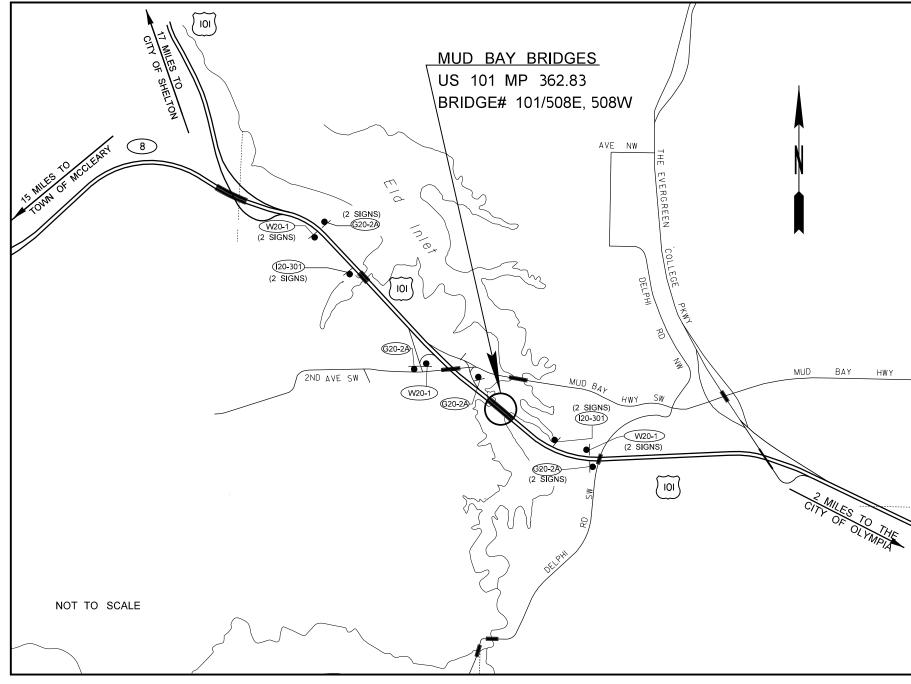


#### NOTES

- 1. PLACE CLASS A SIGNS ON EACH SIDE OF US 101 ROADWAY IN BOTH DIRECTIONS.
- 2. ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS OR IN COORDINATION WITH OTHER PROJECTS.
- 3. SEE STANDARD PLAN K-80.10 FOR CLASS A CONSTRUCTION SIGNING INSTALLATION.

LEGEND

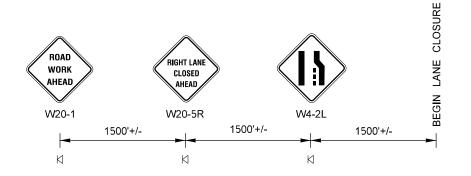
SIGN LOCATION - POST MOUNT (CLASS "A")



MUD BAY BRIDGE CLASS A SIGNING PLAN

#### NOT TO SCALE

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<b>₹</b> TIME	1:58:20 PM				REGION STATE	FED.AID PROJ.NO.				I-5/US-101	PLAN REF NO
A DATE	3/30/2022				10 WASH					MOALLICTED ODEEL A MUD DAY DRIDGE	TC3
PLOTTED BY	BoothC									MCALLISTER CREEK & MUD BAY BRIDGES	
☐ DESIGNED BY	H. GIANG				XL6279				Washington State	REPAIR BRIDGE PILES	SHEET
S ENTERED BY	H. GIANG				ALOZIS				3		41
其 CHECKED BY	M. MIES				CONTRACT NO.	LOCATION NO.			Department of Transportation		_ OF
PROJ. ENGR.	B. WHITEHOUSE						DATE	DATE		ADVANCE SIGN PLAN	44 SHEETS
REGIONAL ADM	I. S.ROARK	REVISION	DATE	BY			P.E. STAMP BOX	P.E. STAMP BOX		ADVANGE GIGIT LEAN	O.I.E.TO



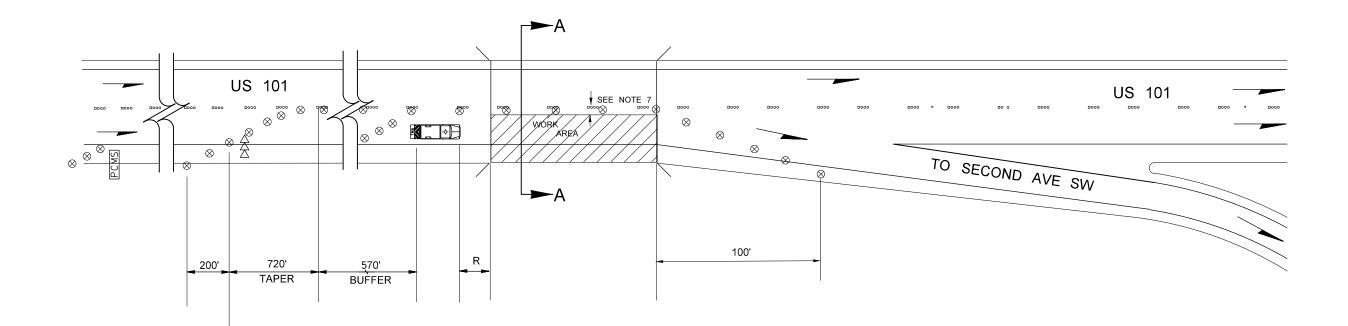
CHANNELIZI	CHANNELIZING			ACING	(FEET)
MPH		TAPER		TAN	GENT
50 / 70		40		ε	30
35 / 45		30		6	50

PC	MS
1	2
RIGHT LANE CLOSED	2 MILES AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE 1 MILE IN ADVANCE OF LANE CLOSURE SIGNING.

TRANSP	ORTABLE A	TTENUATOR	ROLL AHEA	D DISTANCI	E = R
	VEHICLE WEIG 0 TO 22,000 lbs		HOS	T VEHICLE WEI > 22,000 lbs.	GHT
< 45 MPH	45-55 MPH	45-55 MPH	> 55 MPH		
100'	123'	172'	74'	100'	150'

ADVANCED CONSTRUCTION SIGNING (BOTH SIDES OF ROADWAY)



#### LEGEND

SECTION VIEW A-A

OPEN LANE

SEE NOTE 7

N SIGN LOCATION -TEMPORARY MOUNT (CLASS "B")

△ EXISTING PAVEMENT MARKING

TRANSPORTABLE ATTENUATOR

SEQUENTIAL ARROW SIGN

NOT TO SCALE

⊗ TRAFFIC SAFETY DRUM

SEE ADVANCED

CONSTRUCTION SIGNING

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NORTHBOUND US 101 RT LANE CLOSURE

LOSURE 6. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000'.

NOTES:

7. A MINIMUM 4'CLEAR ROUTE FOR BICYCLES SHALL BE MAINTAINED AT ALL TIMES.

UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.

PCMS SHALL NOT BE PLACED IN GORE.

NO ENCROACHMENT ON TRAVELED LANE.

ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN.

EXTEND CHANNELIZING DEVICE TAPER ACROSS SHOULDER.

PCMS SHALL HAVE MINIMUM 4'CLEARANCE TO TRAVELED LANE.

ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.

SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY - CONSTRUCTION

G:\Design\Projects\Multiple Highways Projects\XL6279 - I-5, US 101 Mcallister Creek & Mud Bay Bridges Repair Bridge Plles\\_CAD\\_SheetFiles\TZ WZTC\Mud Bay Traffic Control.dgi FILE NAME TIME 1:58:41 PM FED.AID PROJ.NO. DATE 3/30/2022 10 WASH PLOTTED BY BoothC DESIGNED BY H. GIANG XL6279 ENTERED BY H. GIANG CHECKED BY M. MIES CONTRACT NO. LOCATION NO. PROJ. ENGR. B. WHITEHOUSE DATE DATE BY REGIONAL ADM. S. ROARK REVISION



I-5/US-101

MCALLISTER CREEK & MUD BAY BRIDGES

REPAIR BRIDGE PILES

TRAFFIC CONTROL PLAN

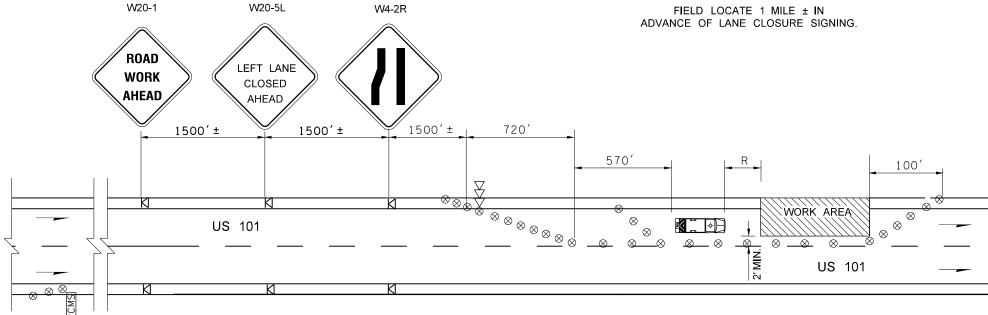
PLAN REF NO
TC4

SHEET
42
0F
44
SHEETS

CHANNELIZI	NG	DEVICE	SF	PACING	(FEET	
MPH		TAPER		TANGENT		
50 / 70	0 / 70			8	30	
35 / 45	30		60			

PC	MS
1	2
LEFT LANE CLOSED	2 MILES AHEAD
2.0 SEC	2.0 SEC
	1 LEFT LANE CLOSED

TRANSP	ORTABLE AT	TTENUATOR	ROLL AHEA	D DISTANCI	E = R		
	VEHICLE WEIG 0 TO 22,000 lbs		HOST VEHICLE WEIGHT > 22,000 lbs.				
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH		
100'	123'	172'	74'	100'	150'		



#### **LEGEND**

SIGN LOCATION - TEMPORARY MOUNT (CLASS "B")

SEQUENTIAL ARROW SIGN

PCMS

TRANSPORTABLE ATTENUATOR

PORTABLE CHANGEABLE MESSAGE SIGN

TRAFFIC SAFETY DRUM

NOT TO SCALE

US 101 LEFT LANE CLOSURE

#### NOTES:

- 1. SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.
- ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN.
   ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- 3. EXTEND CHANNELIZING DEVICE TAPER ACROSS SHOULDER.
- 4. PCMS SHALL NOT BE PLACED IN GORE.
  PCMS SHALL HAVE MINIMUM 4'CLEARANCE TO TRAVELED LANE.
- 5. NO ENCROACHMENT ON TRAVELED LANE.
- 6. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000'.

FILE NAME	G:\Design\Projects\Multiple Hi	ghways Projects\XL6279 - I-5, US 101 Mcallister Creek &	& Mud Bay B	Bridges Repa	ılr Bridg	e Piles\_CAD\_SheetFiles\TZ W	ZTC\Mud Bay Traffic Control.dgr				
<b>₹</b> TIME	1:59:02 PM			REGION NO.	STATE	FED.AID PROJ.NO.				I-5/US-101	PLAN REF NO
<u>C</u> DATE	3/30/2022			10	WASH					MONTH OFFER OFFER A MUD DAY PRIDGE	TC5
	BoothC			'0	WASII					MCALLISTER CREEK & MUD BAY BRIDGES	
☐ DESIGNED BY	H. GIANG			JOB N	10MBER 5279				Washington State	REPAIR BRIDGE PILES	SHEET
S ENTERED BY	H. GIANG			^L	213				1		43
를 CHECKED BY	M. MIES			CONTR	RACT NO.	LOCATION NO.			Department of Transportation		_ OF
PROJ. ENGR.	B. WHITEHOUSE						——————————————————————————————————————	DATE	-	TRAFFIC CONTROL PLAN	44 SHEETS
REGIONAL ADM	S ROARK	REVISION	DATE	RY			DE STAMP POY	DE STAMP POY		INALLIE GONTROL LEAN	SILLIS

SIGN SPACING	= X (1)	
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)
(1) ALL SPACING MAY BE ADJUSTED TO	ACCOMMODATE IN	TERCHANGE

	MINII	MUM S	SHOUL	DER T	APER	LENG <sup>*</sup>	TH = L	_/3 (fee	ŧt)				
SHOULDER	Posted Speed (mph)												
WIDTH (feet)	25	30	35	40	45	50	55	60	65	70			
8'	-	-	-	-	120	130	150	160	170	190			
10'	-	-	-	-	150	170	190	200	220	240			
	USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THAN 8'.												

CHANNELIZATION DEVICE SPACING (feet)					
MPH	TAPER	TANGENT			
50/70	40	80			
35/45	30	60			

BUFFER DATA												
LONGITUDINAL BUFFER SPACE = B												
SPEED (MF	PH)	25	30	35	40	45	50	55	60	65	70	
LENGTH (fe	eet)	-	-	-	-	360	425	495	570	645	730	
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R												
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.						ŀ		VEHICLE • 22,000		GHT		
< 45 MPH	45-55	MPH	>	55 MPH	<	45 MPI	н	45-55 MPH		> 55	МРН	
100'	12	23'		172'		74'		100'		150	)'	

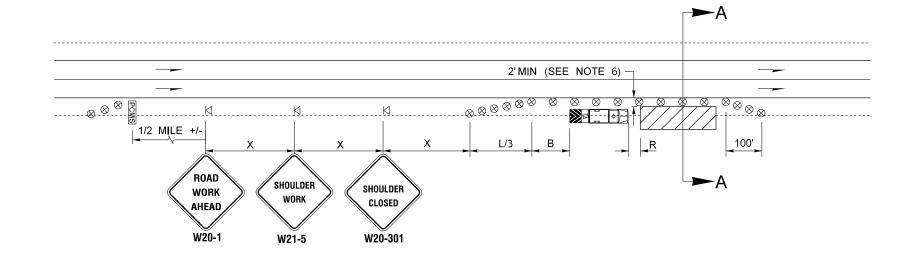
(EXAMPLE	MESSAGE)

RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT

ROADWAY CONDITIONS.

PCMS							
1	2						
SHOULDER	WORKERS						
CLOSED	1 MILE						
AHEAD	AHEAD						
2.0 SEC	2.0 SEC						

LOCATE AS SHOWN



# LEGEND SIGN LOCATION - TEMPORARY MOUNT (CLASS "B") TRAFFIC SAFETY DRUM TRAVEL DIRECTION OF OPEN LANE PCMS PORTABLE CHANGEABLE MESSAGE SIGN TRANSPORTABLE ATTENUATOR

WORK AREA

OPEN LANE

MIN 2'(SEE NOTE 6)

SHOULDER CLOSURE - HIGH SPEED (45 MPH OR MORE)

». RPFFD

DATE

NOTES

5. NO ENCROACHMENT ON TRAVELED LANE. IF ENCROACHMENT IS NECESSARY, LANE SHALL BE CLOSED USING AN APPROVED PLAN.

SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY - CONSTRUCTION

. FOR A RIGHT SHOULDER CLOSURE, A MINIMUM OF 4'CLEAR ROUTE FOR BICYCLES SHALL BE MAINTAINED AT ALL TIMES

ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.

UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.

PCMS SHALL NOT BE PLACED IN GORE.

ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN.

EXTEND CHANNELIZING DEVICE TAPER ACROSS SHOULDER.

PCMS SHALL HAVE MINIMUM 4'CLEARANCE TO TRAVELED LANE.

2				△ EXISTING PA	VEMENT M	ARKII	NG				NOT T	O SCAL	E	
Š	FILE NAME	G:\Design\Projects\Multiple High	ghways Projects\XL6279 - I-5, US	101 Mcallister Creek	& Mud Bay	Brldge	s Repa	Ir Bridg	e Piles\_CAD\_Sh	neetFlles\TZ W	ZTC\Mud Bay	Traffic Cor	trol.dgn	
2	TIME	1:59:23 PM					REGION NO.	STATE	FED.AID P	ROJ.NO.				
Ŀ	DATE	3/30/2022					10	WASH						
Ĭ	PLOTTED BY	BoothC					10	WASH						
3	DESIGNED BY	H. GIANG					JOB N	10MBER 279						
ş	ENTERED BY	H. GIANG					VLC	213						
į	CHECKED BY	M. MIES					CONTR	ACT NO.	LOCATION	NO.				
Š	PROJ. ENGR.	B. WHITEHOUSE										DAT	re l	
	REGIONAL ADM.	S. ROARK	REVISION	ı	DATE	BY					P.E. S1	TAMP BOX	'- I	

SECTION VIEW A-A



I-5/US-101 Callister Creek & Mud Bay Bridges	PLAN REF NO TC6	
REPAIR BRIDGE PILES	SHEET <b>44</b> OF	
TRAFFIC CONTROL PLAN	44 SHEETS	